# Drug Markets

May 1929

Established 1914

*The Magazine of the Manufacturing Drug Trade*



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A Valuable Asset—"Modern Medical Opinion"—The German "Threat"—Small Accounts for Wholesalers—Welcome the Hydrogen-ion—Sales Research.

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## Coming Issues

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VOL. XXIV **DRUG MARKETS, INC.** NUMBER 5

PUBLISHERS

Publication Office, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 25 Spruce St., N. Y. City

Editor THOMAS R. FARRELL

President WILLIAMS HAYNES

Business Manager FRAZER V. SINCLAIR

PUBLISHED MONTHLY AT PITTSFIELD, MASS., SUBSCRIPTION PRICE, TWO DOLLARS A YEAR, IN ADVANCE, POSTAGE PAID TO ALL COUNTRIES; THREE WEEKS' NOTICE IS REQUIRED TO CHANGE SUBSCRIBER'S ADDRESSES, AND WHEN NOTIFYING KINDLY GIVE BOTH OLD AND NEW ADDRESSES. PRINTED BY THE SUN PRINTING COMPANY, PITTSFIELD, MASS. ENTERED AS SECOND CLASS MATTER, JANUARY 1, 1928 AT THE POST OFFICE, AT PITTSFIELD, MASS., UNDER THE ACT OF MARCH 3, 1879.

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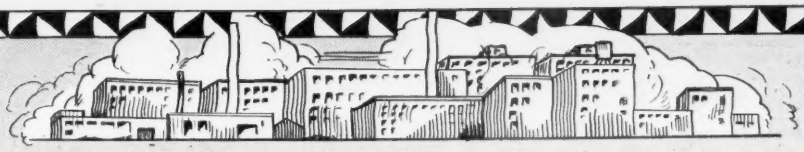

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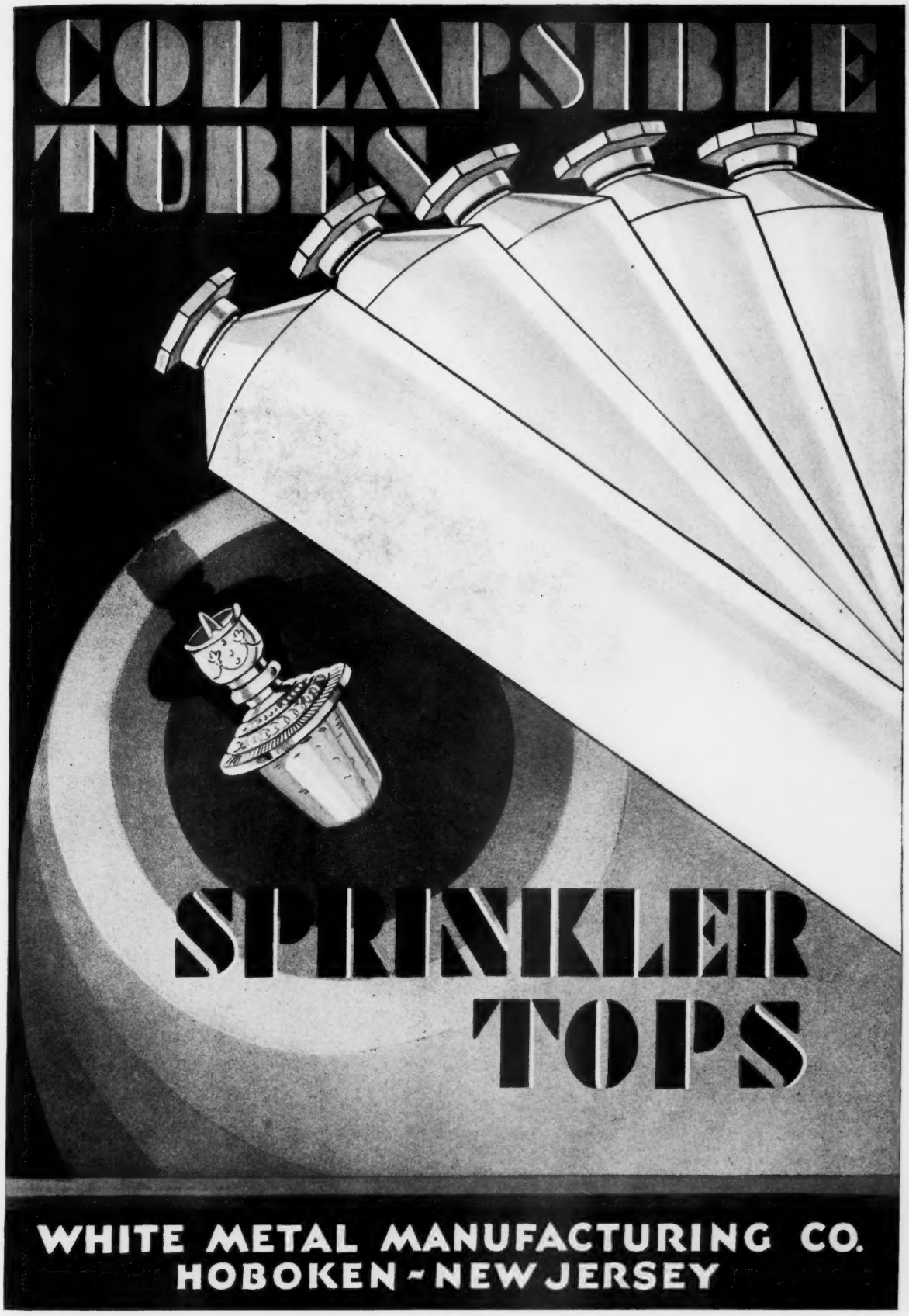
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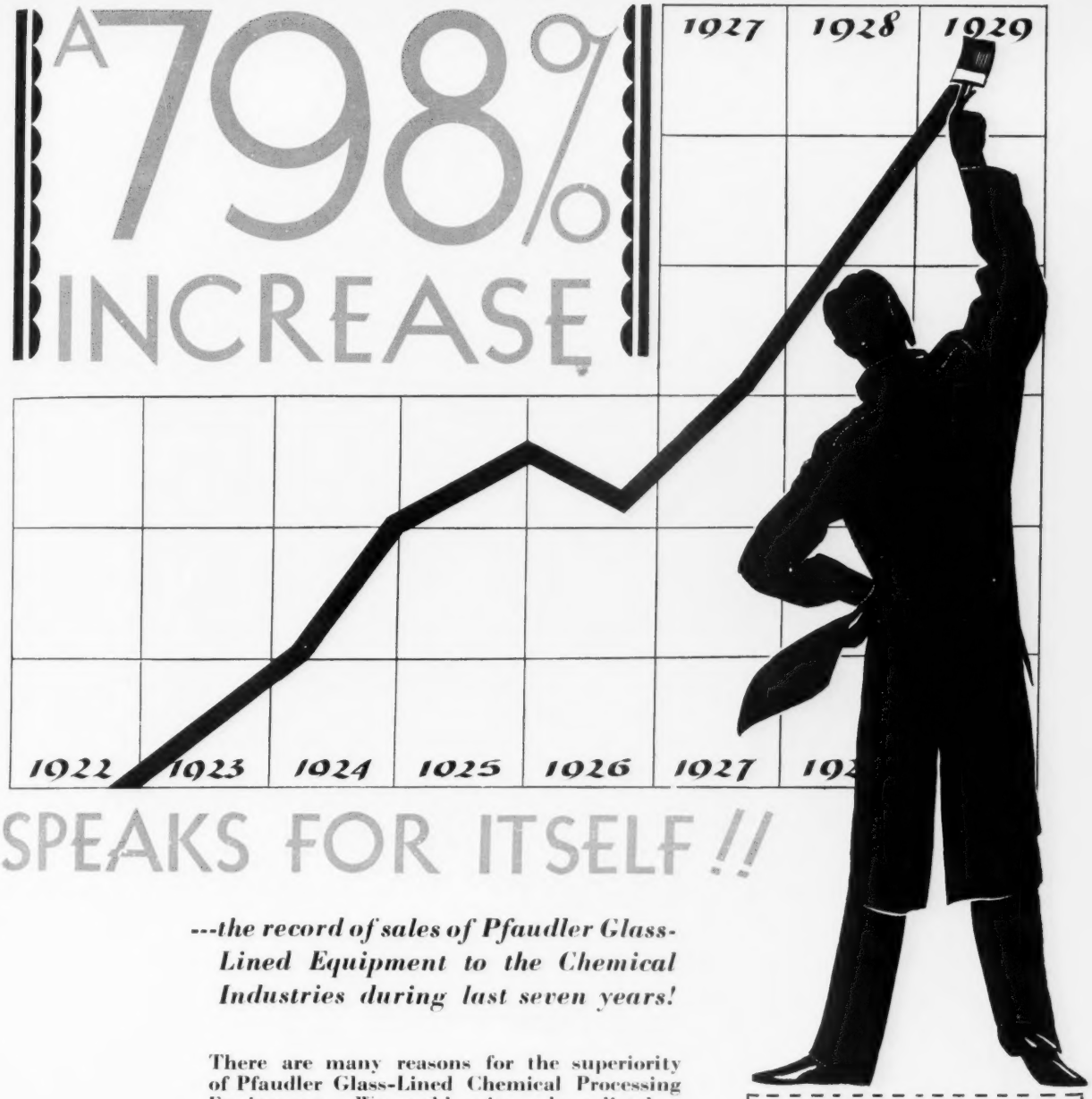


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*Yourr* Chemical Corporation is an imaginary organization. Its buying, manufacturing and sales problems, however, are very similar to the problems of your packing company.

Each month, an article about this imaginary organization will appear in this publication. This is the fifth of the series which started in January. If you have missed any of the previous articles, reprints will be supplied on request. Address, Promotion Department, Phoenix-Hermetic Co., 2444 W. 16th St., Chicago.

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**CITRATES OF IRON, ETC.**

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**MALLINCKRODT CHEMICAL WORKS**

SAINT LOUIS MONTREAL PHILADELPHIA NEW YORK

Drug Markets

Vol. XXIV MAY 1929 No. 5

# A Valuable Asset

GROCERY stores, department stores, general stores, and what-not have repeatedly been looked upon with favor by drug manufacturers as increasing outlets for their goods. Overtures have been made to some of these channels of distribution by certain manufacturers who have sought to increase the number of retail outlets offering their products. Truly, these manufacturers have not neglected the drug trade, but there has been a real feeling that drug stores were taking on too many side lines and thus losing their importance as outlets for drugs and medicines.

BUT the findings of the Department of Commerce in the recent test Census of Distribution made in Baltimore quickly sweep aside any ideas that might have existed as to the decreasing importance of the drug store as an outlet for drug manufacturers. In that one city it was found that the sales of drugs, chemicals and prescriptions in the drug stores accounted for seventy-five per cent. of the total gross sales. Toilet articles and preparations accounted for only nine per cent. of the sales. Cigars, cigarettes and smoking supplies were further down the list with five and one-half per cent., followed by ice cream and soft drinks at five per cent. Candy and confectionery were close to the bottom of important items at two and one-third per cent., and rubber goods finish the list with one per cent.

THAT drug stores are still drug stores is the significant fact given in the picture of the Baltimore drug trade at least. The idea that drug stores are becoming miniature department stores and should change their name falls flat in the face of these findings. That there may be some variation in the percentages of stores in other cities is likely, but there should be no doubt in anyone's mind that the public goes into a drug store primarily to buy drugs. Other items that may be bought in a drug store are, for the most part, just what their name indicates—side lines. If the drugs were not there the side lines would quickly vanish.

IT IS not our contention that drug manufacturers should overlook any opportunity to increase the sales of their products. There are ever so many communities at great distance from drug stores in which distribution through other channels is most desirable. But for manufacturers to give these other avenues of distribution any special offers more attractive or even as attractive as those given to the retail drug trade is not to our mind sound business.

THE retail drug trade exists for the drug manufacturers. It is interested primarily in the distribution of drug products. The existence of such a group of retail outlets specializing in the products of one group of manufacturers is indeed a valuable asset. How many other industries whose goods have no such special channel of distribution envy the position of the drug trade! Yet, in large measure, the drug trade itself takes this ally for granted and does no more than necessary to increase its strength and often tends to weaken it.

# *"Modern Medical Opinion"*

To an observer at the A. D. M. A. meeting viewing prominent drug manufacturers, with heavy investments in their products, asking, in rather timid voices, questions of the genial Dr. J. J. Durrett, enforcing officer of drug control, and most always getting the answers that they expected but did not wish to hear, the picture was a sorry one. There was no doubt in anyone's mind during the whole performance that the contest was entirely an one-sided affair. The label claims on which the doctor was questioned almost invariably ran counter to what the doctor terms "modern medical opinion."

In justice to the doctor we wish to state that he is (and we think he knows that he is) an artful man on his feet. Never did he have to grope far for a satisfactory answer, and never did the smile of the victor leave his face. But after all, the blame for present conditions cannot be placed upon the doctor since he doubtless is attempting to enforce the Food & Drugs Act according to his lights. There is no reason why the doctor should not be guided by "modern medical opinion" if he thinks that only by so doing is he living up to his oath of office. But there is something wrong with a law that makes such regulation of the drug trade possible.

In the regulation of the drug trade under present conditions the regulating officer can set himself up as the medical authority of the country. True he often is guided by the opinions of recognized leaders in the medical profession, but he does not have to follow anyone's ideas but his own. The drug trade itself can have much to say, but it will do little or no good if the enforcing officer thinks differently than the drug trade.

While the American Medical Association oftimes comes in for much criticism as to its influence in regulating drugs, we do not think that the members of this association are so much to blame for using their influence as the drug trade is for permitting a law to stand that allows such influence to exist.

Under the law as it now stands there is no room for different schools of thought as regards the cure, prevention or mitigation of disease. On the contrary, the products that are offered in the market for relief or prevention of illness are to be of the type that entirely fits in with the thoughts of the enforcing officer. It is perfectly possible, therefore, for an enforcing officer entirely obsessed with the idea that surgery, diet, exercise, Christian Science, or what-not are the cure-alls to limit label claims still further.

While the drug trade probably feels bitter resentment over the fact that Dr. Durrett has caused so much trouble, the members of the trade can thank him for bringing forcefully to their attention the real status of the law that regulates the drug trade. For after such time as all labels have been changed according to Dr. Durrett's ideas, the appointment of a new enforcing officer can completely upset everything that has been done. And a new enforcing officer can, if he so desires, be still more drastic than his predecessor.

The changing of the Food & Drugs Act, or of the regulations enforcing it so far as drugs are concerned appears vital if the drug manufacturing industry is to pursue a steady course that will permit it to expand normally without unnecessary restrictions. The appointment of a board similar to the pharmacopoeia revision committee upon which would be represented all branches of the drug trade as well as all medical schools of thought, seems a logical step in this direction. Before this board all sane arguments could be presented. Decisions would be final and would stand until undisputable evidence made a change necessary. There would be no need to fear the changing of the enforcing official, rather would there be only fear of new scientific discoveries that might properly relagate some of the useless remedies now marketed entirely to the scrap-heap.

## *The German "Threat"*

The formation of the American I. G.—an American manufacturing company with very definite connections with the German chemical cartel seems to have struck terror to quite a few of our American manufacturers. At least one man who has many times acted as spokesman for the American dyestuff manufacturers sounds a warning as to what is going to happen to American manufacturers after the German company gets started.

With great respect for all that this gentleman has done for the American industry, we regret that we regard his latest statement as playing directly into the hands of the new competitor in our markets. His statement must have given heart to investors in the new company since he gave as his opinion that the new company could easily take the business away from other manufacturers and relegate existing plants to the scrap-heap at one fell swoop.

And how does the pharmaceutical manufacturing industry of the country feel about this threat ? Are they also to tremble in fear before this monster ? That a direct connection with Drug, Inc., is being maintained by the new company is evidenced by the fact that the name of W. E. Weiss appears on the board of directors. There will be no doubt that the pharmaceutical products of the new company will therefore have ready-made distribution in this country.

But where has gone all that we were led to believe about the brilliant American chemists; those men who were given their chance to prove their ability by the war ? What of all that we have learned in so short a space of time that has proven to us that there is no national corner on scientific brains ? Is American chemistry unable to meet the scientific brains of Germany ?

It appears to us that there is no cause for alarm. Quite truely is it possible that with these manufacturers operating in this country their competition might be keener since they are closer to our markets. But it also seems that when the Germans start operations close at hand where we can watch every step we might be surprised at a revelation of what many regard as their superior ability. It seems quite probable that when the Germans attempt to meet American manufacturers on our own ground that much of the fear might completely disappear to the everlasting benefit of American chemical and drug industries.

## *Small Accounts for Wholesalers*

The action of the Druggists' Supply Corporation and the long list of wholesalers now connected with that organization at its recent meeting in St. Louis points definitely that a complete solution of drug manufacturers' distribution problems is still far off. A determination on the part of the D. S. C. to concentrate its merchandising efforts on the fast moving items that constitute only fifteen per cent. of the sales of the average drug store means that there are ever so many items of prime importance to the drug manufacturers that are still to be handled in the the old way.

It can readily be seen why this action was taken. There is no reason why the wholesalers should attempt to put concerted effort behind those items that will not respond. It is useless to pour money and effort into products that will not show an increased sale commensurate with the money and effort expended. Therefore, the manufacturers' problem is still with them in very large measure.

It is time that the drug manufacturers of the country recognized the fact that there is a very definite limit to the point at which they can afford to contact druggists directly. A study of the cost of having salesmen of the manufacturers calling on all retail accounts both large and small would readily reveal the fact that this is not the best way of solving the distribution problem even though certain of the wholesalers may have been inefficient and direct contact was necessary.

There are certain accounts that must be contacted only rarely in person, and more often by phone. And this contacting must be purely contacting—not selling—in an effort to be certain that these accounts still have a friendly regard for the manufacturer doing the contacting. This small business must be given to the wholesaler with the manufacturer occasionally finding out for himself that everything is all right.

Continued well-directed effort of this kind would materially cut down the manufacturers' costs of distribution. The wholesaler must be satisfied with this sort of business since the manufacturer has proven to his own satisfaction that he can handle the large accounts more efficiently himself. Doubtless the wholesalers would resent such discrimination on the part of the manufacturers and say that they cannot carry the small accounts for the manufacturers without the larger ones. If such be the case it is up to the manufac-

turer to find out just how much it will cost him to handle these small accounts directly, and then handle them directly or pay the wholesaler an additional discount whichever is cheaper.

## *Welcome the Hydrogen-ion*

There is still much to be learned by drug manufacturers about the manufacture of the products that they offer to relieve the retail pharmacist of the work of manufacturing products on a small scale. The problem of stabilizing many of these products has not been definitely solved and consequently there is good reason to believe that a doctor who orders certain products to be freshly made by the pharmacist is acting in the best interests of his patient.

So far as the large majority of products is concerned, it is quite true that the manufacturers produce better products than those that would be produced by the individual pharmacist. Tablets, pills, fluid extracts as a general thing fall in this category. But what about oxidation of some solutions that change the color of the solution and thus give immediate indication that the problem has changed in some of its characteristics ?

One of the most promising factors in the solution of this problem is hydrogen-ion concentration control. In simple language this merely means the degree of alkalinity, acidity or neutrality of a product. But a definite standard of hydrogen-ion concentration for each particular product seems to give a condition under which the product is much more stable than at any other point. Some products that have been very unstable, and that have not responded to any other treatment, have shown complete stabilization when the proper point of hydrogen-ion concentration was determined and the products made to conform with the findings.

Unfortunately there is still much to be learned about the methods for determining hydrogen-ion concentration. But a path of scientific research that holds such immediate promise should not be long in opening up, United effort on the part of drug manufacturers and an exchange of ideas on the best known methods of determination and of the proper degree of concentration should bring rapid solution to many of the problems of stabilization resulting in better quality of the products already marketed and an inclusion of some of those which manufacturers have never been able to offer.

## *Sales Research*

Manufacturing concerns of to-day that are formed by the consolidation of several companies immediately attempt to do business in a more economic fashion as justification for the fact that a merger of interests is advantageous. Oftimes the outward signs of such efficient management do not give a clear picture of just what is going on behind the scenes. Therefore, many are of the opinion that those large corporations that maintain the old plants of the manufacturing units included in the merger, making the various products each in its own plant at a single production point for the whole country, are not doing all that is possible to reach the maximum efficiency and economy.

However, there is one important factor in efficient management and operation that practically all of these newly formed companies recognize. That is the value of knowing the potentials of the market for their products in every nook and corner of our country. Salesmen, sales quotas, advertising efforts, and other sales factors are proportioned in accordance with the known data.

To employ sales research is to get the largest share of a given market with the least possible cost. It is applying proper methods to the buying of sales in much the same manner as proper methods are applied to the buying of raw materials or the buying of production. There are still in existence large companies who were large before sales research was heard of. They are of the opinion that sales research is a toy for the small companies to play with. But they might easily be surprised some day when the smaller companies somehow grow large, and being large become considerably more dangerous in a competitive way because they employ sales research.

## { *Ten Years Ago* }

**(From our pages, May, 1919)**

Dr. Robert P. Fischelis has resigned as chief chemist of the H. K. Mulford Co., Phila, to become chief of the newly organized technical department of the Matos Advertising Co. Dr. Fischelis is professor of commercial pharmacy at the Philadelphia College of Pharmacy.

Dr. William J. Schieffelin, president of Schieffelin & Co. has brought suit against Mayor John F. Hylan for $100,000 for libel because of statements in a letter to Health Commissioner Copeland regarding the business done by Schieffelin & Co. in narcotics.

Arthur H. Rowe, formerly with the Heyden Chemical Works, will represent the New York Quinine and Chemical Works in the New England states, and New York City and state.

# *Changing* Package & Advertising *in* Opposite Directions

**While making the package more pleasant, the Mennen Company has changed its advertising copy from a pleasing type to one which tells facts however unpleasant.**

By William G. Mennen
*President, the Mennen Company*

THERE is no question in my mind that the container for a product is just as important in any merchandising scheme as the type of advertising copy used to sell the product. And it is just as important to change the design of the package occasionally as it is to change the style of the appeal made through the advertising copy. Times and conditions change, and with them the style of the package and the appeal of the advertising copy neccessarily change. No one would think of tolerating the style of type or the lack of art work prevalent in advertisements of thirty years ago, so why should one hesitate to change either the design of package or the advertising appeal frequently, at shorter intervals, so that neither of them ever actually goes out of style and makes the eventual change more difficult by postponing the evil day—a day that generally does not prove so evil but most always proves a blessing in disguise.

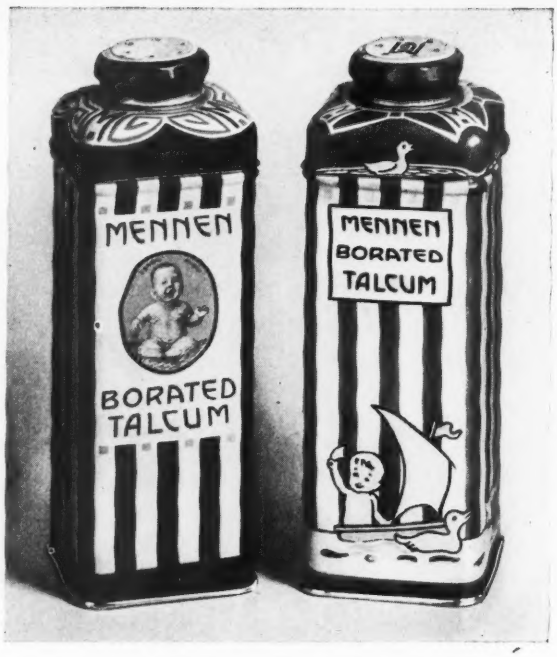
We have never hesitated to change any of our packages when we thought that conditions demanded such a change, nor have we ever hesitated to change the style of appeal of our advertising copy when we thought that the style in use had served its day. The new merchandising plan for our Baby Powder involves both a change in package and a change of advertising appeal. However, the present package change was quite easy for us to accomplish since the can formerly was in use entirely modern in all respects, being of comparatively recent adoption. How difficult it would be to adopt the present package if we had never changed before! If we were still using the round flat topped can of more than twenty years ago, the present change would have called for all kinds of safeguards to retain our old customers. But, with probably a dozen changes of the Baby Powder package to our credit, the present change was made and accepted by the trade and the consumer as if

"ammonia diaper" odor is the warning signal
Look in the "diaper region" at once!
MENNEN BORATED BABY TALCUM
The young mother quickly recognizes "ammonia diaper"—its odor is so pronounced—so unpleasant.
An irritable, crying, sleepless baby is the result.
You will check "ammonia diaper" and soothe the "fire" in your baby's skin if you use Mennen—the Borated and Zinceted Baby Talcum.
Bear in mind that Mennen Baby Powder contains these two well-known antiseptics—boric acid and zinc oxide—both of which are recognized by physicians as of utmost importance in the treatment of inflamed skin.
Only the purest and softest talcs are used in Mennen Borated Baby Talcum—a perfect blend chosen for its moisture-evaporating and anti-frictional properties.
Your baby will be cooler after using Mennen Borated Baby Powder—because it aids the natural efforts of the child's skin to throw off excess moisture.
Mennen is the scientifically perfect and safe baby powder for the modern young mother to use. Your druggist has it!
The MENNEN Co., Dept. LH(), Newark, N. J.
FREE: Nursery Wall Chart on Baby Care!
MENNEN
BORATED BABY TALCUM

**An example of the new advertising appeal**

nothing had happened—nothing but a distinct improvement.

The reasons for the change of design of the package are simple enough. Our powder is sold for use on babies. Therefore it is up to us to make the can as attractive to babies—and their mothers—as possible. The can that we have recently discarded was entirely modern in design and had the advantages of good shelf value given by strong colors. However, it is readily appreciated that the dark blue stripes of that package were entirely out of harmony with the furnishings of the modern nursery. Furthermore, the very attractive baby departments of many of our retail outlets would not display this dark colored package, because, as a modern lady would say, "There was no ensemble."




**The old style tin is shown at the left, and the new one at the right.**

Since time immemorial baby blue has been the color for layettes, and it will probably continue to be so at least for many years after most of us are gone. And whether the mother is expecting a boy or a girl and gets what is expected or not, baby blue is never out of place since it blends as well with the pink of the girl as with the blue of the boy. With the color that we now use on our package there can be no clash of colors.

Another fact of importance in merchandising Baby Powder is the fact that the powder can is the baby's first toy. Always associated with babies are ducks, geese, etc. Consequently the application of the motif of ducks, geese, etc. to our package is easily explained. It is merely another instrument helpful in making our package more attractive to mothers and babies quite aside from the high quality of the powder contained therein.

As to the method by which we introduced the new package, this was most simple, but like all simple and direct things, most effective. We merely gave the trade approximately three months notice that something new was going to happen in our Baby Powder and advised them not to overstock and to clean out their stocks of as much merchandise as they could before the first of the year and to be ready for the new event. No intimation was given as to what form the change was to take. Some of them thought that the price was to be lowered; others had different ideas; but all were watching Mennen Baby Powder. This simple method had the desirable effect of stimulating trade interest in our product. We had absolutely no difficulty in this method of making the change. We did not take back a single old style package.

**The Baby Chart of which 500,000 are to be distributed this year.**

At the time we introduced the new Mennen Baby Package with its greater appeal to the aesthetic sense, we also radically changed our advertising in the other direction. It may seem to some that we changed our package to a more pleasing design to furnish a sugar coating for the lack of pleasing appeal in our advertising copy.

However, we felt that we had a story of tremendous importance to tell the mothers of America, and that the only way to put it across

successfully was to call a spade a spade and be specific in our statements and recommendations.

It is a well-known fact borne out by numerous investigations that nine women out of ten, know very little about the virtues of one baby powder over another. They accept baby powder as being merely a nicely packaged form of talcum that they might dust on their babies' bodies, without any recognized effect on the child except perhaps that they felt it would cool baby's body and prevent chafing. But WHY did they not know.

For a long time we, as well as other manufacturers, had turned away from the "reason why" copy of the past, to more beautiful modernistic types showing contented babies, happy babies, babies who apparently needed nothing more than just a nice soft talcum dusted over their bodies.

And yet all this while millions of mothers saw their babies suffer continually from skin irritations which the proper kind of powder would check and soothe, if it were used in time and used regularly and properly.

Our advertisements and the advertisements of other manufacturers of like products certainly brought to the young mothers' attention no information whatever on the subject of how a powder might be a source of great usefulness and comfort to her baby.

We, therefore, decided on a very specific and striking advertising copy theme, which we felt sure would have an instant appeal to every mother who saw her baby suffering from those skin irritations that caused so much discomfort to the child.

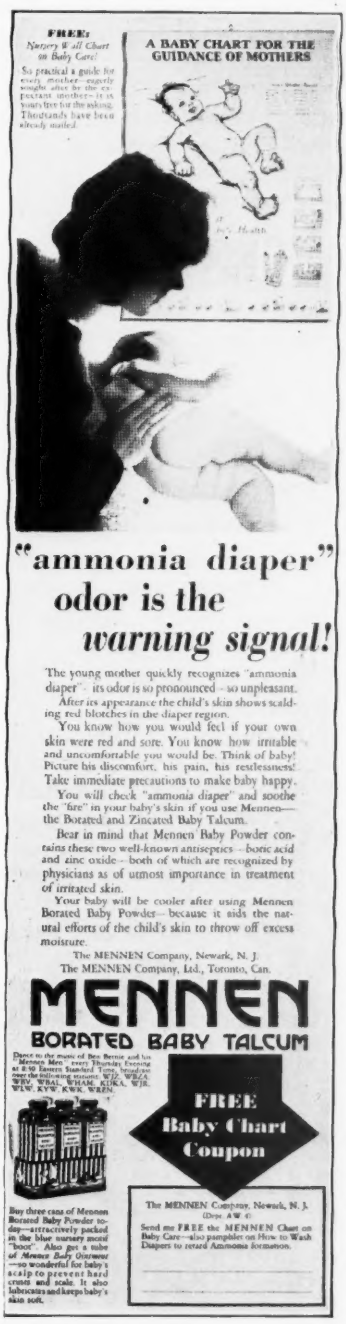
One of the most frequent causes of discomfort to the average baby is the irritation that occurs in what we have termed the "*diaper region*" —a scalding of the childs' thighs, buttocks and back. Millions of mothers have noticed this angry redness in their child's skin, and not knowing the proper steps to take, and the proper powder to use, have either considered it a necessary evil, and let their children suffer from this painful irritation, or have been forced to call in their physician.

This "diaper region" irritation is due largely to the chemical action of the uric acid on the alkali residue which remains in the diaper after laundrying. The resulting scald on the child's skin is commonly known as "ammonia dermatitis" and we have specifically referred to it in all our advertising. The average young mother quickly recognizes this ammonia condition because of the pronounced odor of ammonia. It worries her, it makes her child sleepless and restless, and she has frequently asked her druggist's advice as to what to do. But very few druggists have known that a properly medicated baby powder will do just the very thing that the physician might advise to soothe and allay the irritation in the baby's skin.

The Mennen Company decided to make a very thorough research in the writings of a number of well-known pediatricians, in addition to which we had prepared an analytical bio-chemical survey of all powders on the market. We discovered that a vast majority of the country's leading pediatricians unhesitatingly recommend boric acid and zinc oxide as the specific medicaments for this ammonia diaper irritation.

An investigation confirmed our own knowledge of the fact that Mennen Borated Baby Talcum contained the correct scientific percentage of boric acid, zinc oxide and other recognized antiseptics, and we, therefore, felt that we had a most important story to tell the mothers of America who were seeking information that would guide them in the proper care of their babies' bodies. We knew that the real function of the proper baby powder should be told to the women of the country, so we decided to feature "ammonia diaper," and point out why Mennen Baby Powder, because it was borated and zincated and otherwise medicated, that it was the proper powder and the only powder for her to use on her baby.

We also explained to the young mother that a powder must be something more than just a dusting talcum and that not alone would Mennen powder check and restrict the spread of "ammonia diaper" irritation, but it would also, because of its softness and "slip" serve as a wonderful lubricant to prevent chafing and rubbing raw in the folds of baby's skin.


FREE:
Nursery Wall Chart on Baby Care!
A BABY CHART FOR THE GUIDANCE OF MOTHERS
"ammonia diaper" odor is the warning signal!
The young mother quickly recognizes "ammonia diaper"—its odor is so pronounced—so unpleasant.
After its appearance the child's skin shows scalding red blotches in the diaper region.
You know how you would feel if your own skin were red and sore. You know how irritable and uncomfortable you would be. Think of baby! Picture his discomfort, his pain, his restlessness! Take immediate precautions to make baby happy.
You will check "ammonia diaper" and soothe the "fire" in your baby's skin if you use Mennen—the Borated and Zincated Baby Talcum.
Bear in mind that Mennen Baby Powder contains these two well-known antiseptics—boric acid and zinc oxide—both of which are recognized by physicians as of utmost importance in treatment of irritated skin.
Your baby will be cooler after using Mennen Borated Baby Powder—because it aids the natural efforts of the child's skin to throw off excess moisture.
The MENNEN Company, Newark, N. J.
The MENNEN Company, Ltd., Toronto, Can.
MENNEN
BORATED BABY TALCUM
FREE Baby Chart Coupon
The MENNEN Company, Newark, N. J.
Send me FREE the MENNEN Chart on Baby Care—also pamphlet on How to Wash Diapers to retard Ammonia formation.

**Troubles occur if powder is not used and Mennen tells why powder corrects them.**

We also brought out forcibly in our advertising the fact that Mennen Baby Powder is composed of a *blend* of talcs—each specific talcum being selected for certain properties which it possesses and giving combined properties never found in any one talcum.

The average mother does not know just how a baby powder cools her baby. We have pointed out to her that because of the careful selection of talcums, we are able to get a blend that will, because of its composition, properly absorb and evaporate the excess moisture on the child's body. This correct absorption and evaporation of moisture is what causes the cooling of baby's skin. In other words a talcum formulated as our is, will aid the natural efforts of the child's skin mechanism to throw off excess moisture. A cooled skin is the inevitable result.

In order to graphically call mothers' attention to the facts which we present in our copy, instead of showing happy and contented babies in our advertising, we are showing photographic illustrations of mothers and babies, with unusual stress on the "*diaper region*", which is an expression that we have coined, in order to describe that part of baby's body most subject to irritation and distress because of lack of the proper powder application.

This new style of advertising should do a real job not only for ourselves, but for all makers of baby powders. It should greatly extend the number of mothers who use powder on their babies. We realize that a baby powder should be sold as any other product is sold—on its merits. If it has a definite place where it should be used, the consumer must be told of this place and taught to use it.

The Mennen Company is therefore trying to educate mothers to realize that the proper powder for their babies should be a medicated specific and not just an ordinary cosmetic powder that might be selected without rime or reason.

Tying in with this new publicity, we have also originated a nursery wall chart for the guidance of mothers, in the external daily care of baby. This chart is similar to the oiling and greasing charts for automobiles. The chart shows the baby in a half lying position and arrows with numbers at the ends of them lead outward from the various parts of baby's body that should receive daily care. Corresponding numbers at the left side of the chart head paragraphs which tell the mother briefly what the should do.

It is a real surprise to see how well this chart has been received. We are now two weeks behind in distribution of the chart following the receipt of coupons from our advertising.

Thousands of drug stores throughout the country have requested copies of the chart to hang in their windows. We are receiving quantity requests from hospitals and training schools for nurses.

These charts are particularly useful to the new mother, and not alone for those mothers who do not take a nurse home with them upon leaving the hospital, but also for those who do bring a nurse back with them to the house for a short time.

The instructions given on the chart for the care of the baby have been written and approved by many leading pediatricians. The demand for the charts has been so heavy that we estimate that 500,000 will be distributed during the current year. We are prepared for this enormous distribution since we feel that by so doing we are taking a real constructive step which cannot but help to react favorably in sales.

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## *Striking Distribution Facts*

Told by H. C. Dunn, *Department of Commerce*
At the A. D. M. A. Meeting

Results of the Baltimore Census of Distribution revealed the following facts:

| | | |
|---|---|---|
| Total Drug Store Sales in 1926.... | $11,059,800 | 100% |
| Drugs, Chemicals, Prescriptions.. | 8,371,000 | 75% |
| Toilet Articles and preparations.. | 962,800 | 9% |
| Cigars, Cigarettes, etc..... | 601,800 | 5½% |
| Ice Cream, Soft Drinks, etc..... | 546,000 | 5% |
| Candy, Confectionery, etc..... | 263,600 | 2⅓% |
| Rubber Goods..... | 130,800 | 1% |

**Amount of toilet goods sold in Five and Ten Cent Stores** exceeds the volume of business done in sheet music and is equal to the business done in electrical supplies and household supplies combined.

**Toilet articles and preparations sold in department stores** exceeded the volume of rayon sales and nearly equaled the sales of cotton goods. This volume was more than half the sales of children's and infant's wear and nearly half the sales of boots, shoes and other footwear, and more than one-third the furniture sales in these stores.

**Meat, poultry and fish stores,** also musical instruments and sheet music stores sold toilet preparations.

**The amount spent for drugs, chemicals and prescriptions,** exclusive of toilet articles and preparations, was equal to the retail sales of boots, shoes and other footwear. It equalled the retail for books and for candy and confectionery combined.

**In Chicago,** daily inventory of drug stores was $6,542, or 29% more than in Baltimore.

Drugs represented 97.6% of inventory with turnover of 5.8 times per year.

Toilet articles, and preparations and soap amounted to 2.4% of inventory with turnover of 11 times per year.

Sales of drugs and toilet articles averaged $24.21 per capita, a little more than one-half the amount spent per capita for automobiles.

Of 1,611 drug stores, 1,231 or 76% reported gross sales ranging from $10,000 to $50,000 per year. There were as many stores doing less than $10,000 per year as did a business ranging between $50,000 and $250,000 per year.

# The Change *from* "Full Line" *to* "Specialties"

## As told by Ralph R. Patch

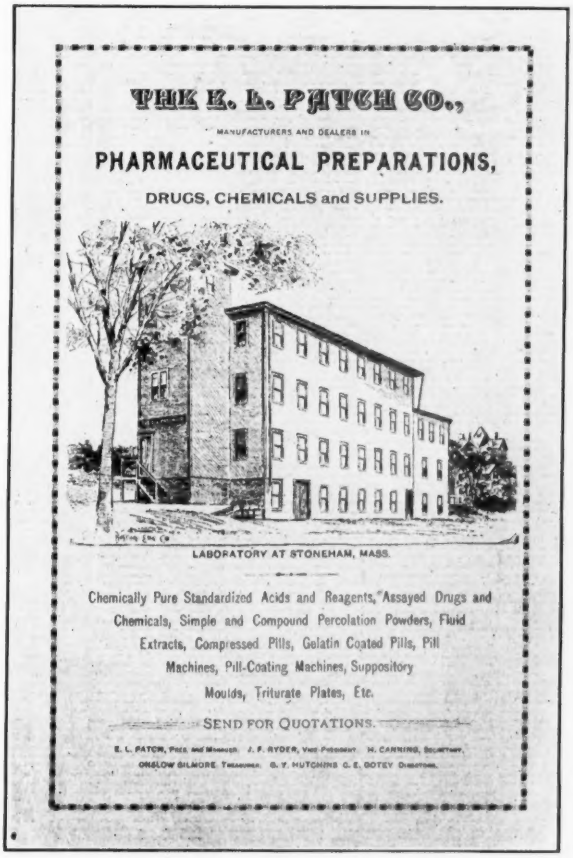
*Recorded by Williams Haynes*

CAN you imagine the sales executive of even the most strictly ethical pharmaceutical house in the United States introducing a new line of well over three thousand items to the trade in the following words:

"It is not our intention to create a demand for our goods that shall compel pharmacists to add to their already overloaded shelves another maker's line; but to present goods, crude and manufactured, corresponding to the pharmacopoeial requirements so that they may be safely recommended to physicians and the public as strictly standard."

Neither can I imagine it.

Yet upon that most unsalesmanlike platform has been built a most interesting pharmaceutical success, The E. L. Patch Company. For it is to be noted that weird as was the selling psychology of this announcement made in that first issue of their price list on August 1st, 1889, nevertheless it is an admirable declaration of manufacturing principles. Edgar L. Patch, the founder, laid down under the business a broad, strong foundation of production ideals, technique and organization. His successor, Ralph R. Patch, has developed distribution by seeking out the profitable markets and pushing sales in them. This combination of manufacturing father and merchandising son has not been uncommon in American industry. It has often won conspicuous commercial victories.


THE E. L. PATCH CO.,

MANUFACTURERS AND DEALERS IN

PHARMACEUTICAL PREPARATIONS,

DRUGS, CHEMICALS and SUPPLIES.

LABORATORY AT STONEHAM, MASS.

Chemically Pure Standardized Acids and Reagents, Assayed Drugs and Chemicals, Simple and Compound Percolation Powders, Fluid Extracts, Compressed Pills, Gelatin Coated Pills, Pill Machines, Pill-Coating Machines, Suppository Moulds, Triturate Plates, Etc.

SEND FOR QUOTATIONS.

E. L. PATCH, PRES. and MANAGER. J. F. RYDER, VICE PRESIDENT. H. CANNING, SECRETARY.
ONSLOW GILMORE, TREASURER. G. F. HUTCHINS. C. E. GOTEY, DIRECTORS.

**A Patch Catalog of 1889**

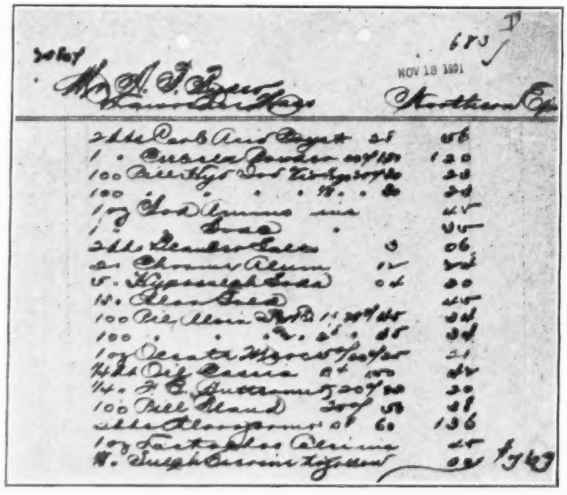
During the two hours that we sat together over lunch at a secluded table in the corner of the high ceiling dining room of his club in Boston, Ralph Patch in many ways and time and again paid tribute to his father's manufacturing skill. "He was a pharmaceutical genius—he worked out himself not only over six thousand different formulas, but he planned and perfected every step in their commercial preparation—he was the most thorough workman I ever saw—his ideal was to manufacture a certain specific pharmaceutical for every conceivable purpose—the idea of making money was simply left out of his philosophy—the one question he asked of

every product was: 'Is it right ?'—his only jealousy was that the contents of every Patch package should check absolutely with its label."

Even in these commercialized days, when the leaders of industry are much more apt to be in conference over "costs" or "markets" than over "standards," the basis of a quality product is in the long run a tremendous advantage. "With the start he had forty years ago and his outstanding pharmaceutical qualifications, if he had been able to tie up with a man of equal qualifications in the field of marketing, The E. L. Patch Co. would now be one of the world's great pharmaceutical houses." Ralph Patch stated this simply, as a fact, and there was no trace either of bitterness nor of wistfulness in his voice. Plainly his affection for his father and his respect for all that he had accomplished far overtopped any idea of shortcomings.

**Edgar L. Patch**
**Founder of The E. L. Patch Company**

"The original idea of the Patch company was my father's. At the time he was Professor of Pharmacy in the Mass. College of Pharmacy and partner in the drug store of Canning & Patch, at the corner of Green and Chamber Streets, famous as doing the largest prescription business in Boston. The store, which had no candy, cigar or soda counters, was close to the Massachusetts General Hospital and many of the students and internes had the habit of gathering in the back room for discussions on pharmacology and materia medica with my father. Many of these informal students of his have made their mark in the world since—the most renowned was Leonard Wood, commander of the Rough Riders and Governor General of the Philippines.



**A Patch order dated November 13, 1891**

"About 1886 the idea came to my father that New England should have its own pharmaceutical house. He interested his partner, Henry Canning and their clerks, George Y. Hutchins and Charles E. Dotey, also J. Franklin Ryder and Jorge Vargas. Mr. Ryder owned the drug store at 50 Washington street, which he sold to Charles Jaynes, making it the third store in the original Jaynes Drug Company, one of the earliest chains. Mr. Vargas was a native of Bogota, Colombia, where he was well connected and the plan was that as soon as the business was well started he would open a branch in Bogota and develop South American trade. Mr. Hutchins is now secretary of our company.

"This little group organized themselves into "the Six Associates" and in 1886 began paying money into a savings fund which in two years grew to a sum that seemed to justify a tangible advance. A Maine corporation was formed, and they purchased the old Brush-Murphy shoe factory at Stoneham. The remodeling was completed and manufacturing started in January, 1889. Before this, however, Jorge Vargas withdrew, and his place was taken by Onslow Gilmore of Stoneham.

"The first salesman was George Agry, who passed out of the picture quite soon and was succeeded by Minot F. Davis, who later took up medicine and is now a very successful practicing physician on Boylston St., Boston. In 1893 offices were opened in New York and Chicago. The Chicago office was discontinued after three years, and the New York office after about ten years.

"It was never intended that I should go into the business," continued Ralph Patch, "in fact, my mother had made my father promise that none of us boys—there were five of us and one who died a baby—would do so, and I had been educated as a sanitary engineer at Massachusetts Institute of Technology. But after I had graduated from college my father's illness changed all this, and I joined the E. L. Patch Company. I first spent four years working at practically every job in the laboratory, then went on the road as a salesman.

*(Continued on page 514)*

# EXPORT --- *A Cure for* Market Limitations *and* Seasonable Demand

**The extension of the market for Antiphlogistine to practically all the markets of the world has given to a company marketing a single product virtually unlimited possibilities for increasing sales volume. Furthermore, the slack season has been removed and the yearly sales curve is virtually a straight line.**

By Harold B. Scott
*General Manager*
*Denver Chemical Manufacturing Company*

INCREASING the volume of sales with each succeeding year is a problem with which all departments of all companies are intimately concerned. Methods to make this possible take many forms. Hence we see drug manufacturers periodically bringing out new specialties or new complete lines of products; increasing their advertising expenditures; increasing their sales forces; changing their policies of distribution; and what not.

If the executives of a company decide to stay in the territory which they have cultivated well, they are faced with the problem of obtaining new products. For once the United States has been covered in as complete a way as is economically possible with existing products, increased efforts to raise sales quotas only result in increasing the ratio of expenses to gross revenue. In other words, this new business increases the cost of obtaining all the business done by the company and so is too expensive to consider as an advantage from a profit and loss viewpoint.

If new products are to be introduced, the most difficult thing is to obtain products of merit just for the asking. There is little to be gained by entering a specialty market already overcrowded. And while it is true that certain new entries in these specialty markets have made pronounced successes, the success is quite often due to the advertising and merchandising efforts placed behind the products, rather than to the merit of the products them-

**The French laboratories of the Denver Chemical Manufacturing Company.**

Three of the thirteen laboratories maintained by the Denver Chemical Manufacturing Company, only three of which are in the United States. Above is the German plant at Berlin; below at the left is the Argentine plant; and below at the right is the plant in Spain. The latest laboratory being established in Japan will open this Summer.

selves. Furthermore, success in such a market is very uncertain since a smarter merchandising plan can quite easily take this market away in a very short space of time despite all the efforts of the older manufacturers to retain their positions in it.

The Denver Chemical Manufacturing Company has, during its entire existence, marketed only one product—Antiphlogistine. We have no desire to offer any other product. However, we also must increase our volume of business steadily as the years go by.

### Removing Seasonal Demand

Another serious disadvantage coincident to the marketing of a single product such as ours is seasonal variation. Demand for Antiphlogistine starts to increase in the Fall; reaches its height in the Winter; starts to diminish in the Spring; and is at low ebb in the Summer. To allow conditions to continue in this manner means that, while the employees can be retained all year around, they must, during the slow season, be diverted to other work—work with which they are not too familiar or of which they are none too fond. In this case, a large part of the manufacturing equipment must stand idle for a number of months. If, however, the decision is made to stretch production throughout the entire year, manufacturing equipment is quite often insufficient to handle heavy increases in demand during the peak season, while large quantities of finished stock must be added to the inventory for a long period of time.

In order to overcome the limit placed upon market possibilities and at the same time quite effectively to remove the disagreeable valleys that formerly occurred during the Summer months, we are in export markets. While we have been exporting for approximately thirty years, it was in 1913 that we decided to go after export business in proper fashion. To-day we still have a great deal of work ahead of us although we are represented by either our own laboratories or agents in all but three countries of the world. The point of market saturation for Antiphlogistine is still far in the future, and I have no idea when it will be reached, if at all.

We have reached a point where our yearly sales curve for a single product, subject to seasonal variations in demand is practically a flat line. This is made possible by the fact that we have a demand in the Southern Hemisphere which is about equal to the demand in the Northern Hemisphere. Our demand increases in the Southern Hemisphere when Winter is approaching—the time when our demand in the Northern Hemisphere is fast disappearing. Thus I can safely say that to us our foreign business is at least as important and valuable as our domestic business.

To compare our position with a manufacturer who has restricted his territory, but who has bent his efforts to increase his business through development of a large number of products, there is this comparison. The manufacturer of a large number of products has the possibility of increased business in some lines at times when others may register a decline. However, there is a great likelihood that all products will show a decline in demand at the same time unless these products are more diversified than is possible in the drug trade alone.

Diversification by means of world markets rather than by products gives us the equivalent of as many businesses as there are markets involved and, therefore, our investment is well hedged with protection against bad business conditions, wars, and other calamities that occur in every business. Such conditions do not occur throughout every country at once and when domestic business is depressed, foreign markets are booming. It makes the world sales curve a fairly even curve without the valleys and dips which the manufacturer who depends solely on one market is subject to.

### Requisites of an Export Product

Establishment of a world demand that thas this desirable diversification calls for three prime requisites: A product of merit; sufficient available capital; and *patience*. The first of these requisites should be self-evident and require but little comment. However, it is a fact that oftimes markets in this country are captured by products that are noticeably lacking in merit—the high market position being won by sheer merchandising effort. To attempt to duplicate this success in foreign markets and have the demand gain steadily through the years is folly indeed, for the advertising and merchandising effort must necessarily precede the product wherever it goes, and to do this in building up an export demand is one of the most difficult things that can be thought of. For export markets in large measure grow of themselves, and one of the most beautiful things about these markets is the fact that orders come in from countries that have not been entered or even investigated by the manufacturer. A product with small merit would fall down badly under conditions such as these.

Sufficient capital is required for the development of export markets for the same reason it is required at home. Furthermore, there is much more competition to be met than there is at home. Not only are other American manufacturers offering competition, but manufacturers of other foreign countries are to be reckoned with, while the domestic products of many of these markets are very actively in demand. There is little to be gained by entering foreign markets in a half-hearted manner. A product very rarely grows to a place of importance without real effort—and the work market demands that this effort be made.

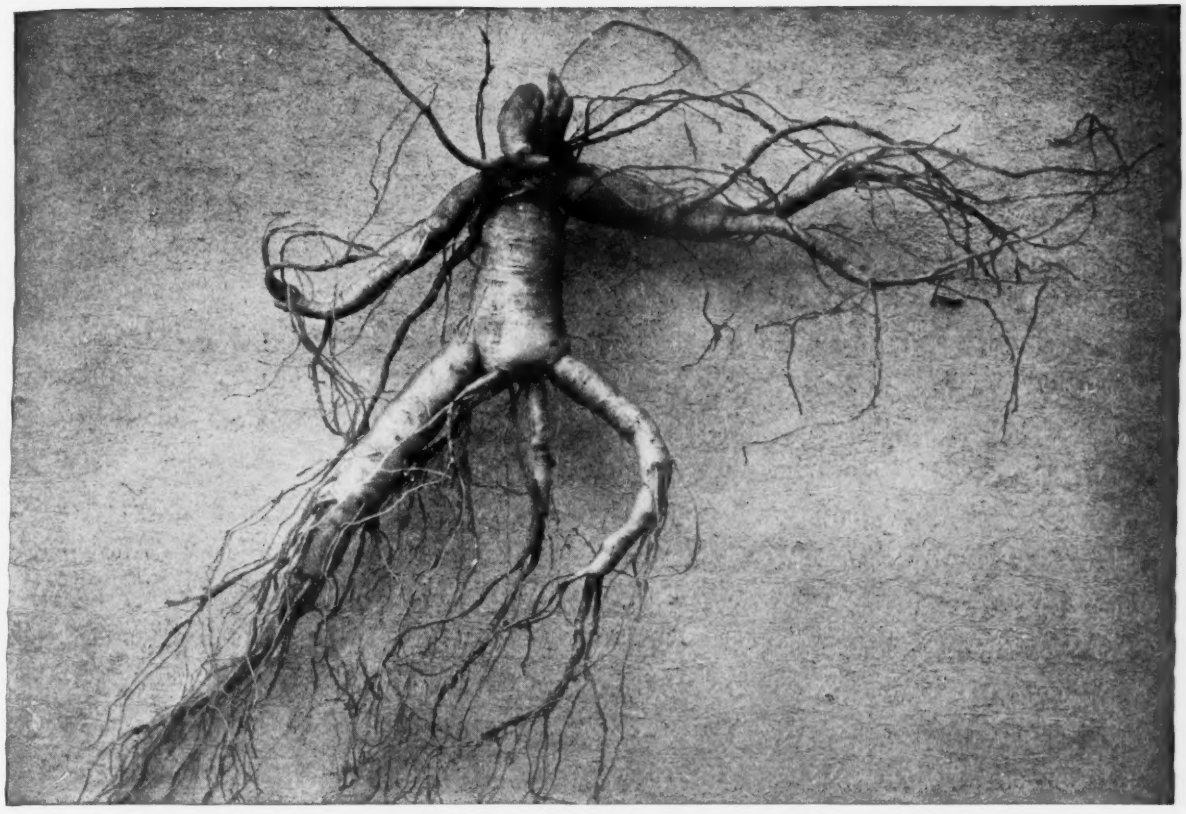
As foreign markets are entered, expenditures for a time, are necessarily far in excess of return. In other words, for a time an investment must be made

*(Continued on page 516)*

*Courtesy of "Asia"*

**The cultivation of ginseng provides occupation for the whole Korean family. The busy scene above shows the children of the community doing their bit. There may be efficacy in holes made by human fingers when beds must be planted. Below the men are washing the full-grown roots, which are ready to be dried for the market.**

*Courtesy of "Asia"*



# What is Ginseng's Merit?

HELD sacred in China because of its likeness to man, Ginseng, or the Man-Image, a crude drug produced in America as well as in the Asiatic countries, finds its entire consumption in one country of the world—China. Whether this is due to the fact that the Chinese people has jealously guarded the secret of how properly to use this drug, or whether the statements of certain scientists of America as well as of other countries that no benefit can be derived from its use will probably not soon be answered. But the recent widespread reception in this country of ephedrine from the Chinese crude drug Ma Huang, following its use for centuries in China, might readily lead to the conclusion that there is still something of medical knowledge to be learned from the Chinese people. It is not correct to say that their faith in drugs is all based upon superstition.

Writing in the March 1929 issue of "Asia," Louise Crane tells of "Ginseng and Rejuvenation." By permission of the publishers of "Asia" and also by permission of the author we publish here passages from this article. Further knowledge was also gleaned in an interview with the author.

The chief cause of the fame of this root in the West is the fact that the genuine Asiatic root has been at all times, and is to-day, the highest priced root in the world. Furthermore, rare specimens of ginseng are reported to have outdistanced even diamonds and pearls for costliness.

"Adverse judgment has been repeatedly pronounced by Western science as to the medical virtues of ginseng," states Louise Crane in her article, Chinese medical practice maintains ginseng is a tonic to the five viscera, quieting the animal spirit, establishing the soul, allaying fear, expelling evil effluvia, brightening the eyes, opening up the heart, benefitting the understanding, and if taken for some time, it will invigorate the body and prolong life."

Dr. G. A. Stuart's comments in "The Chinese Materia Medica," published in 1911, states:

"The ordinary ginseng of the markets (Korean, Japanese and American varieties) has been studied and has not been found to possess any important medicinal properties. But it is probable that the Manchuraian drug was not studied carefully by any European observer on account of its scarcity, the

*Courtesy of "Asia"*

**Before being dried the man-image must be cleaned of its threadlike appendages and then peeled. Women are specially adapted to this part of the work. In the picture above we see the process under way: the women engrossed in their task and the government overseers keeping an eye on them. Below are the men, sorting the roots, to be packed for export.**

*Courtesy of "Asia"*

imperial monopoly and the high price. For these reasons, also, only two or three complete herbarium specimens of the Manchurian wild ginseng are to be found in the museums of Europe."

From this it may be assumed that the present state of scientific knowledge in the West as to the medicinal value of ginseng is practically nil, for the good and sufficient reasons indicated by reputable authorities, says Louise Crane. And this being so, she continues, it is more than probable that the path thus pointed out as leading at least to better acquaintance will not fail to find its followers. As a matter of fact, she states, a certain amount of progress has already been made under Russian auspices, but owing to the overthrow of the Czarist regime the findings have not been hitherto published.

### Russia Investigates Ginseng

The Russian interest in Ginseng, says Louise Crane, took on a new phase during the Russo-Japanese War, when army doctors began to comment in writing on the medicinal aspect of ginseng, and to show signs of being impressed thereby. Then at some time after the Portsmouth Treaty negotiations, arose the fortuitous circumstances that led eventually to a scientific analysis which was the first to throw any real light on the subject.

As the story runs, writes Louise Crane, the Russian secretary, Count Witte, was made at the time, the recipient of what would probably be considered the most distinguished mark of Chinese favor ever shown to a foreigner, when the then Premier of China, Li Hung Chang presented the Czar's representative with a remarkably fine collection of choice specimens of the Man Root—a gift obviously as valuable as it was unparalleled.

Immediately on his return to Petrograd, Count Witte placed the entire collection in the hands of Dr. A. Y. Danilevsky, professor of physiological chemistry at the Imperial Military-Medical Academy, who, in turn, assigned to a senior student in the laboratory, M. Y. Galvialo, the task of making a detailed analysis of the chemico-pharmacological properties of the roots. These results showing great results of great scientific interest and importance, they were embodied in the young man's thesis for the examinations for the degree of Magister. Subsequently, this document was published officially by the Laboratory of Physiological Chemistry under the title: Ginseng; Report of Chemical Analysis of the Chinese Root San Siam—this being the name by which the root is known throughout the East, outside of China, because of its great popularity among the Siamese.

To quote from the findings of Magister Galvialo, "It appears that the root contains a certain vegetable substance which in its chemical nature has a curious affinity with animal sperm, and the active alkaloid of cola-nuts. The presence of the vegetable sperm partly explains its strange effectiveness in heightening the general tone of the organism and regenerating physical power.

"On the one hand, the Chinese empirically developed method of using the root as a means of stimulating the oxidating processes indicating the presence of certain oxidaz-like components. But owing to the fact that the action of the root is maintained by them to be effective only when the patient's system has been exhausted after high temperature, it was impossible to presume any of the ordinary ferment-like oxidaz.

"On the other hand, experiments with frogs and mice treated with extracts from the root proved conclusively the presence of active matter, and it was also made evident that the roots varied, some containing two or more other active agents, including the substance known as panaquilon. The full potentialities of the root, therefore, could be ascertained only from complete and uninjured, and above all, fully matured specimens."

### Secret Not Fully Revealed

To discover and isolate this active substance was the chief aim of the Magister's researches, but the coveted secret does not appear to have yielded itself up fully, and if further was made subsequently it is probably buried among the archives of the Czarist government, says Louise Crane.

As compared with these findings, the following in the U. S. Dispensatory's entry, states broadly and without reference to specific varieties, that:

"Ginseng contains a glucosidal principle, panaquilon, besides saponin, a bitter principle, a volatile oil, resin, sugar, mucilage, and starch. S. S. Garrigues describes panaquilon as an amphorous yellow powder soluble in water and alcohol, etc., etc. It (ginseng) is a mild dumulcent, and in this country is rarely employed as a medicine. A Japanese, W. Sakai, describes it as having a sedative effect upon the cerebrum and a mildly stimulating action upon the vital centers."

As with everything else pertaining to Chinese medicines, the secrets of preparing and administrating the various species of ginseng have been jealously guarded. Most of the favored eye-witnesses, however, agree with the Russian as to the preliminary cleaning and boiling of the root for about ten minutes in sweetened water, the latter to preserve it against climatic conditions and worms. Both operations are of paramount importance. In the former lies the danger of injuring the root, hence it is cleaned by means of a taut silk thread inserted into the folds and drawn carefully back and forth. In the boiling the risk is incurred of destroying its life-giving properties, and it is a fear frequently realized.

After cleaning and boiling the root is wrapped in oiled paper and steamed in a sort of double boiler, the lower part for water and the upper, into which the root is laid, pierced with holes to allow the steam to circulate evenly. The time allowed for this pro-

cess is gauged by the lighting of incense sticks, one and a quarter being consumed for each root. After the steam bath they are dried in an open air shed, but carefully sheltered from the lightest draught. When, finally, they are ready for the market they are of a pale amber color. The fine, beard-like roots will have been trimmed off by some expert hand as being no longer essential to the virility of the Root. They are of the thickness of a match stick, and are to be seen everywhere in the medicine shops neatly arranged into clusters six or seven inches in length. From them is made the universal tonic tea, to be administered in the home to the fever *convalescent*, great emphasis being laid on the importance of waiting until the temperature has become normal, not because of any danger involved, but for the reason that the medicine would not be productive of results. On the other hand, among Koreans, ginseng tea in a mild decoction is a beverage as common as is tea among the Chinese. Moreover, it is given to children as well as older persons, which in no circumstances would be the case in a Chinese household.

The leaves of the plant probably also undergo some secret preservative process, judging by their fresh appearance when sold in the shops in fragrant bundles. An expectorant remedy is made from them.

### Chinese Administration of Ginseng

Generally speaking, ginseng is administered in infusion form in China, but following the popular custom of using wine as a conveyance for most drugs prescribed by a physician, ginseng wine is a universal article of commerce. Ginseng is invariably prescribed in small doses, which produce their results very gradually. The patient is put under a rigid regime, with "dark" meat, opium-smoking and all other stimulants excluded, some physicians even going so far as to prescribe tea. This course of treatment, obviously, presumes a condition of general breakdown; but there are other and less arduous ways of making and maintaining acquaintance with the essence of life—as, for instance, in the course of an afternoon's visit, when a host serves his guest with a tiny glassful of cognac in which a prize specimen lies steeping.

Official annual figures for this "minor" industry, supplied by the Bureau of Plant Industry, show that "the average value of the exports of American ginseng for the past twelve years ending in 1921 is $1,720,595." But recent U. S. Customs Reports indicate that considerable progress has since been made in the gathering of wild roots. Ginseng exports including both wild and cultivated roots are seen to have begun with 114,221 pounds valued at $119,385 in 1871. In 1920 a bumper crop was recorded, of 220,970 lbs., valued at $2,847,900, which is slightly higher than the 1927 output of 188,912 lbs., valued at $2,636,783. As indicating the ports of destination of these cargoes, 1926 Customs reports show, speaking in round numbers, 300 lbs. to Germany, 7,800 lbs. to Canada, 21,000 lbs. to China, and 150,000 lbs. to Hongkong, where, by the way, the roots are sorted and made up into preparations to be shipped to Shanghai.

"Approximately 70% of the portion credited to Hongkong and all of Canada's share probably represent ginseng raised in the U. S. It is estimated that 49% of the ginseng imported into China in 1919 and 35% of that imported in 1920 was of American origin."

An item no less interesting than these is also included in the report. It deals with a small matter of $60,378 worth of ginseng *imported* into the United States from China.

The imports of Korean ginseng into China have varied widely in quantity and value as evidenced by the following figures:

| | *Pounds* | *Value* |
|---|---|---|
| 1904 | 80,000 | $2,800,000.00 |
| 1916 | 38,232 | 1,400,000.00 |
| 1917 | 64,636 | 2,500,000.00 |
| 1922 | 64,636 | 750,000.00 |
| 1923 | 64,636 | 750,000.00 |
| 1925 | 45,031 | 400,000.00 |

## Dr. Franklin Miles

Dr. Franklin Miles, founder and president of the Dr Miles Medical Co. of Elkhart, died April 1, at his home in Fort Myers, Fla. He was 84 years old.

Dr. Miles practiced medicine in Chicago for a period after having devoted 12 years to collegiate and professional training. He was author of many scientific treatises on the eye, brain, heart and nervous system. Dr. Miles was founder of the Medical Company that bears his name. This concern was organized in 1884, for the manufacture and sale of remedies he had discovered.

Surviving Dr. Miles is his wife, three children, six grandchildren and two great grandchildren. Interment was in Grace Lawn cemetery, Elkhart.

## Charles C. Kelley

Charles Coleman Kelley, President of G. S. Stoddard & Co., Inc., New York, died at the Albany, N. Y. Hospital on April 20, following an operation at that institution. He was in his 59th year.

Funeral services were held at his late residence, Bennington, Vermont on April 23. He was also president of Charles Cooper, Bennington, and a member of St. Paul's Episcopal Church, Troy, N. Y., the Troy Club, Masonic Lodge, Knights Templar and Cyprus Temple of the Shrine. He is survived by his wife and a sister, Mrs. Charles H. Lathrop of Albany.

The Clinical Laboratories Co., New York, announce that John A. Klingstedt, 1030 Broadway, Rockford, Ill. was the winner in the 1928-29 Rinex Head Cold Display Contest. First prize was $35.00, others ranging from $20 to $5.00.

The Chemical Foundation, after May 1, will be located at 654 Madison ave., New York.

# *Has the* Department *of* Agriculture Eliminated "Mitigated" *from the Law?*

By H. C. Hallam
*Washington, D. C.*

IN THEIR zeal to enforce the food and drugs act, officials of the Food, Drug and Insecticide Administration, United States Department of Agriculture, are, in effect, disregarding, if not seeking to eliminate from the law, part of the definition of what constitutes a drug. This is the belief and statement of drug trade representatives and other students of the food and drugs act, who point to section 7 of the law, which says that the term "drug" covers all medicines and substances used for the *cure, prevention or mitigation* of diseases of man or animal.

**The Food and Drugs Act is a law regulating medicines that cure, prevent or mitigate diseases of man or animal. There have been claims that in its present campaign, the Food, Drug and Insecticide Administration does not recognize medicines that only mitigate diseases. However, the Administration has its own ideas as to just what "mitigate" means.**

Competent authority such as Allen's Synonyms and Antonyms gives the following synonyms for "mitigate:" Soothe, subdue, temper, soften, allay, ease, alleviate, ameliorate, assuage, palliate, quiet, quieten, relieve. According to drug trade authorities, department officials do not pay sufficient attention to the meaning of mitigation or to that provision of law recognizing the mitigation of disease. Mitigation of disease should be recognized by officials as entitled to being mentioned or referred to on the label of a medicinal preparation, the drug trade contends, in view of the provision of the law.

The trade view is that mitigation has been practically excluded from consideration by department officials in carrying on their campaigns against preparations claimed to be for treatment, cure or prevention of influenza, penumonia, la grippe, bronchitis, and other diseases of the respiratory tract, and against certain other classes of preparations. Influenza, for example, is generally marked by certain well recognized symptoms or is accompanied by certain conditions, such as fever, headache, pain, and great lassitude or weakness.

Drug experts connected with the trade declare that a drug or medicinal preparation which will alleviate, relieve, temper, allay, soften, quiet, soothe, assuage these conditions, or some of them, will mitigate the disease. But the attitude of department officials is described by some as the opposite of this position. Allen's Synonyms and Antonyms gives the antonym of "mitigate" as "aggravata." The official attitude undoutedly "aggravates" the drug trades, if it does not "aggravate" the disease of influenza. Officials do not say that preparations advertised for treatment of influenza and certain other diseases will aggravate the disease, but they do declare that a patient taking such a preparation is buoyed up by a false idea that he is being benefited thereby, and therefore will not be as careful as he should be in the matter of rest, warmth, proper food, or other factors needed in proper treatment. These conditions may bring about an un-favorable reaction, officials say, which may result in disaster to the patient.

Trade people, however, declare that many preparations are of real value in treatment of influenza—and the same is true of other diseases—because they relieve the symptoms of, or conditions marking the disease. This constitutes mitigation of the disease

within the meaning of the law, according to the trade view. On the other hand, they declare, the department's interpretation of the definition of a drug, under the food and drug law, allows for something narrower than mitigation of disease.

It is recalled, that when the department issued its well remembered blast against preparations claiming to be useful for treatment of influenza and related diseases, now a number of weeks ago, that official statement mentioned preparations for "prevention" and "cure" of influenza as being under the ban, but made no mention of "mitigation" of the disease. This was called to the attention of officials at the time, it is understood, and one of them is reported to have admitted that perhaps something should have been said about "mitigation." However, nothing has been said since by way of recognition of the proposition that influenza or related diseases may be mitigated by the use of medicinal preparations, so far as officials of the Department of Agriculture are concerned. On the contrary, they continue to stand pat on the proposition that there is no mitigation of disease in the alleviation of pain or fever accompanying the disease.

Such being the case, the question arises, what is to be done about it. When drug trade people are asked why the attitude and policy of the department are not contested, they point to the ever present danger of multiple seizure of a possible contestant's product. This danger is described as a stone wall, which drug manufacturers fear to go up against. They regard it as an immovable body, while some of them doubt that they themselves are an irresistible force.

### No Court Decisions on "Mitigation"

Drug trade representatives say they do not recall any court decision on the question what constitutes mitigation of disease. Assistant Solicitor O'Donnell of the Department of Agriculture says that courts have decided, with respect to mitigation, that "there must be substantial relief for whatever is claimed on the label." Whether this has reference to pain, fever or other symptoms of, or conditions accompanying a disease, he said, would depend upon the facts in any particular case.

"Show me a preparation that claims to mitigate a disease and we will deal with it in accordance with the law," said Walter G. Campbell, Director of Regulatory Work, Department of Agriculture. "If it actually mitigates disease we will treat it with propriety."

"When something mitigates a disease we will try to recognize it to the best of our ability," said Dr. P. B. Dunbar, in charge of the Food, Drug and Insecticide Administration. "Preparations have been proceeded against because they violate the law, in our judgment. We make no distinction, so far as enforcing the law or recognizing the provisions of law are concerned, between medicinal preparations which are claimed to prevent, mitigate or cure disease."

"The mitigation" clause of the food and drug law is construed as referring to a product rather than to the labeled claims on it, according to the interpretation given by one department official to a drug trade representative. Just what was meant by that statement is a matter of conjecture.

For practical purposes, just at present, Dr. J. J. Durrett, chief of Drug Control under Mr. Campbell and Dr. Dunbar, is in position to say considerable about the question of mitigation of disease, inasmuch as he passes upon the labels used on medicinal preparations. Replying to a number of questions from the representative of DRUG MARKETS, Dr. Durrett said:

### Must Work on Disease Itself

"It is not true that the department is trying to do away with the mitigation of disease under the food and drug law. We know that mitigation is recognized and we propose to recognize it, as it has a right to be recognized. But none of the labels we have condemned say 'mitigate,' or claim mitigation. Mitigation means that the preparation for which it is claimed must work on the disease itself. It is not enough to say that a medicine mitigates a symptom of disease or a condition accompanying disease. It is not enough to say that it acts on the patient. Mitigation of a disease means the making of that disease milder, shortening it in length, softening its onslaught. Relieve does not necessarily mean cure, nor does mitigate mean relieve."

In this last statement Dr. Durrett differs from such authorities as Allen's Synonyms and Antonyms. Continuing, Dr. Durrett said:

"Many things classed as anodynes or anti-pyretics, which are claimed to relieve pain or reduce fever temperature are depressant drugs. Some act on the heart; others on nerve centers. Such classes of drugs do not mitigate disease. They do not mitigate pain or symptoms of disease, within the meaning of the law. They merely make the patient unconscious, or less conscious, of his pain or other trouble. Some of them do not even relieve pain as they are claimed to.

In connection with this latter statement, there is a story going the rounds that Solicitor Cronin of the Department of Agriculture was holding a hearing not long ago involving a preparation that was claimed to relieve pain. One of those being heard said the preparation would stop earache.

"Hold on," cried Cronin. "I am expert on that question." He then went on to say, according to report, that he had suffered from earache in connection with an attack of double mastoid disease, had tried the preparation under discussion, but still continued to have earache. It is reported that the claim with reference to earache was thereupon dropped, so far as that particular preparation under hearing was concerned.

Dr. Durrett said that it would be all right to label a proper ointment of sulfur and lard as a mitigant of itch, for, he said, it is known that it will mitigate itch. Or, said he, one may label a product as one that "tends to relieve pain," but it will not be permitted to claim that it will relieve pain incident to influenza or other diseases, nor to claim that a preparation will mitigate the symptoms of influenza or of other diseases.

### Department Opinions Differ

United States Public Health officers say that certain medicinal preparations will tend to mitigate disease by relieving pain or other incidental conditions under some circumstances. However, Dr. C. C. Pierce, Assistant and Acting Surgeon General, declined to discuss such matters in detail. He said he would leave them to clinical experts, the function and policy of the Public Health Service being rather to prevent disease than to cure it or mitigate it. Dr. Pierce admitted that there are great differences of opinion among medical men as to proper or best methods of treatment for disease, medicinal remedies that should be used, and so on. For the most part, however, he said, medical men agree that morphia is most effective to stop pain, and upon perhaps half a dozen specific cures for disease, including quinine for malaria, arsenicals and mercury for syphilis, and a few others. He said they know that epsom salt will act on the bowels. Whether an anti-pyretic or an anodyne could be said to relieve or mitigate disease, Public Health doctors think would depend upon the facts in each case, such as the age and condition of the patient, and conditions pertaining to rest and other factors.

Further evidence of differences between the Public Health Service and the Food, Drug and Insecticide Administration is found in the fact that officials of the former say that they regard the use of bicarbonate of soda and other measures to produce alkilinity in the system of the patient as one of the most effective methods of treatment of influenza. But Dr. Durrett, asked about the use of soda and about the grapefruit treatment for influenza, declared that they have not been "established."

### Grapefruit and Influenza

Drug trade representatives have pointed to the fact that former Secretary of Agriculture, Jardine, during the past winter sponsored large shipments of Florida grapefruit for distribution in cities suffering from the influenza epidemic, according to announcement made by the Florida Citrus Clearing House. This is declared by trade representatives to be in antagonism with the Department of Agriculture's policy of attacking all preparations claimed to be for prevention or cure of influenza. Grapefruit has been widely advertised as good for treatment of influenza, as have many medicinal preparations. "The positions of the Secretary of Agriculture and his assistants are irreconcilable," declares E. C. Brokmeyer, attorney for the National Association of Retail Druggists. "Because grapefruit shipments were not labeled as good for treatment of influenza they escaped condemnation, whereas drugs and medicinal preparations bearing such labeled claims have been condemned."

### Some Debatable Points

Drug trade experts take issue with Dr. Durrett's statement that anodynes or anti-pyretics do no mitigate pain or fever, but only make the patient less conscious of them. They say that if this statement is correct it has not been proven. It is not unlikely, in their opinion, that at least some of such classes of medicines as those mentioned do in fact produce a change in the system of the patient, remedying the condition of disease, and therefore mitigate disease, even according to the alleged narrow definition of Dr. Durrett. It is admitted, however, that considerable pharmacological experimentation might be necessary to prove this proposition of the drug people, or to disprove it, either, for that matter.

Trade experts also take issue with the Department on the construction of a court ruling the substance of which is contained in the department's statement outlining rules for labeling drug preparations. Reference is had particularly to the statement that "language used in the label will be given the meaning ordinarily conveyed by it to those to whom it is addressed." Drug trade representatives assert that Dr. Durrett's construction of this sentence is too narrow. His construction, as they see it, is that the language used on the label will be given the meaning conveyed by it to a medical expert, and not to a patient purchasing a remedy for use in self-medication, whereas the label is really addressed, or intended to be addressed, generally, to the layman, and not to a medical man.

### Layman Must Understand

Proper interpretation of the court ruling, the substance of which is quoted above, according to drug trade experts, would be that the language used on a label should be clear in its meaning to the *layman*. Take the case of a counter-irritant preparation, for example. Trade experts assert it is proper to label such a preparation as "relieving congestion" because if a layman suffering from what he feels and believes is congestion in his chest were to use that preparation for rubbing his chest (or covering it, as with mustard plaster) he would probably feel himself benefited by such treatment. But the medical idea, as expounded by Dr. Durrett, is reported to be that a counter-irritant preparation will perhaps stimulate circulation and may produce results that way, but that it will not "relieve congestion" as such, and therefore may not be labeled to indicate that it does.

# New German Medicinals

(*Concluded*)

**Pneumitren.** This preparation contains the following ingredients according to Roth:—1.5 parts by weight of creosotal, 0.2 parts by weight of Peruvian balsam, 0.01 part by weight of camphor, 0.2 part by weight of ichthyol, 0.02 part by weight of oleum menth. pip. and 0.03 part by weight of ansise star oil. The preparation comes in the form of capsules which are made from hardened gelatine. This preparation is recommended for use in the treatment of irritations of the nasal membranes, bronchitis, grip, and cattarrhs. Dose is from two to three capsules a day. It is used in the II Medizinisch Klinik, Hamburg, Germany.

**Progynon.** A concentrated female cyclus-hormone employed for regulating the female sexual function; Also recommended for use in the treatment of amenorrhoea, climacterical troubles and the like. Comes in the form of pills. Described by Steinach in Pfluegers Archiv., year 1928, volume 219, by Streck in Klin. Wochenschrift, year 1928, number 25, pages 1172ff., and by Novak and Last in Med. Klin., year 1928, number 46. Manufactured by Schering-Kahlbaum A. G., Berlin.

**Pulmofluid.** An extract which is prepared from herb. equiset., polygon., galeopsid., pulmonar., plantag, m. fol. salv., lich. Island. It is a tea extract and contains silicic acid. Is recommended for colds. Dose consists of one teaspoonful of the liquid un a cup of water. Described by Studa in Deutsche med. Welt, year 1928, number 49, pages 1826ff. Manufactured by Efeka-Neopharmazeutsche A. G., Hannover.

**Pyrifer.** Attention has been called a number of times in various medical magazines and papers to the highly important role that fever plays in certain rather serious diseases and affections of the central nervous system. In this connection particular emphasis must be placed upon the fact that the condition of partial paralysis has been eliminated or improved to a considerable degree by inoculation with malaria. Nevertheless, malarial therapy is surrounded with certain serious difficulties and disadvantages. The new preparation, which has come into the market under the name of Pyrifer, is stated to possess certain peculiar characteristics as far as physiological activity is concerned which overcome the disadvantages and difficulties connected with malarial therapy. This preparation can be used to produce a healing fever in the human organism, the intensity and the time required for the fever to be produced depending on the amount of the dose. This healing fever can be used as an agent in the treatment of such diseases as progressive paralysis, multiple sclerosis, myelitis, tabes dors. and the like. The preparation, which is known as Pyrifer, can be obtained in varying strengths and concentrations, and it contains bacterial albumens from a non-pathogenic microbic source. It is stated that the use of this preparation has already resulted in marked success in numerous instances and the patients have been improved if not entirely cured in a number of cases. The medical centers of Europe are very much interested in this preparation. A great many investigations and studies have been made on its effects and some of these are referred to below in the list of references given. It is described by G. von Volkmann in Zeitschrift fuer Augenheilkunde, year 1928, volume 65, numbers 1 and 2, by Zahler in Med. Welt, year 1928, number 18, by Segerath and Hofer in Therapie der Gegenwart, year 1928, number 8, by F. Hoff and von Linhardt in Zeitschrift fuer gesamte pexperimen. Medizin, volume 63, numbers 3 to 4, by Zehn and Meier in Med. Welt, year 1928, number 44, by Blum in Therapie der Gegenwart, year 1928, number 12, by Fr. Meyer in Pysch.-neurol. Wochenschrift, year 1928, number 43, by Runge and Melzer in Deutsche med. Wochenschrift, year 1928, pages 2093ff, and by Moewes in Med. Klin., year 1929, pages 27ff. It is manufactured by Physiologische-Chemische Laboratorium Hugo Rosenberg, Frieburg i, Br., Germany.

**Quinquenal.** A new soporific. Containing a number of ingredients, such as luminal, adalin, codeine phosphate, trional and phenacetin. Weight of the tablets is half a gram. Manufactured by Dr. Albert Bernard Nachf., Berlin.

**Reglykol.** Comes in capsules. It is a mixture of a large number of drugs, such as:— glycero-phosphoric acid, chrysophane, arbutin, emetine, capsacin, etc. This preparation is supposed to increase the tolerance of the system for carbohydrates and to reduce the precipitation or separation of sugar. Recommended for use in the treatment of diabetes. The patient has to take one capsule in the evening, dissolved in a glass of water. Described by L. Koening in Zentralblatt fuer inn. Medizin, year year 1928, number 4.

**Rheukomen.** A mixture of iodo-salicylic acid ester and formic acid. Comes as a salve in tubes. Recommended for treatment of neuralgia and rhemuatism to be rubbed into the painful parts. Described by Hildesheimer in Deutsche med. Wochenschrift, year 1927, pages 2035ff, and by Zolki in Med. Klin., year 1927, pages 1060ff. Manufactured by Albert Mendel A. G., Berlin-Schoenberg, Germany.

**Sedormid.** Allylpropylacetylurea. Comes as white powder which is difficultly soluble in water. It has an action similar to adalin. Used as a sedative in doses of one to three tablets during the day, and as a sleep-producing means in doses of one to two tablets before going to bed. Described by Demole in Deutsche med. Wochenschrift, year 1928, page 1166 and by Naumann in the same journal. Manufactured by Hoffmann-La Roche & A. G., Basel, Switze-land.

**Siderac.** A new form of active iron oxide. Comes in the form of tablets, containing 0.1 part by weight of biologically active iron oxide and four times that amount of tablet filler. These tablets are recommended for use in the treatment of anaemia and conditions of exhaustion and weakness. Dose is one tablet three times a day. Described by Moldawsky in Klin. Wochenschrift, year 1927, pages 1908ff, by Goldbloom in Deutsche med. Wochenschrift, year 1928, pages 433ff, and by Fresenius and Harpuder in Klin. Wochenschrift, year 1927, pages 19ff. Manufactured by the Chemische Fabrik Protmonta, Hamburg, Germany.

**Sistonin.** Consists of a yellowish white powder which is prepared from blood. Supposed to possess blood staunching effects. Recommended for treatment of haemoptoea, haematemesis and haematuria. Used for injection purposes and two, ten, or twenty cubic centimeters of the ready prepared solution is taken from the ampulles. Described by Leukert in Med. Klin., year 1928, pages 1581ff Manufactured by Dr. Heissler, Chrast., Germany.

**Solvosal.** A new preparation recommended for treatment of whooping cough. Comes in form of suppositories of two strengths. Contains theobromine, calcium salicylate, adrenaxlin, quinine hydrochloride, camphor oil, eucalyptus oil and anise oil. Described by Crecelius in Med. Klin., year 1928, pages 342ff, who claims to have secured good results with this preparation. Manufactured by the Chemische Fabrik Helfenberg.

**Somnoferrin.** As the name indicates, this preparation is a soporific. Consists of fol. aurantii, meliss. trifol., flor. lupuli, herb. veron., valerian aa. Used in the form of a tea and also known in the form of pills. Described by F. Blumenthal in Med. Welt, year 1928, pages 338ff. Manufactured by Dr. Oehlmann Nachf., Madgeburg, Germany.

**Soneryl** A hypnotic and an analgesic. It is butylmethyl barbituric acid. Comes in the form of ampules and tablets. Dose consists of one and one-half to two tablets. Manufactured by the Poulenc Freres, Paris, France.

**Splenotrat.** An extract manufactured from the spleens of freshly slaughtered young animals. The daily dose of the preparation consists of half to one tablespoonful which is added to soup. Recommended for use in the treatment of hyperglobulia vera and joint tuberculosis. Described by Nipperdey

(*Continued on page 512*)

# A Can Covering Machine Makes Speed Possible

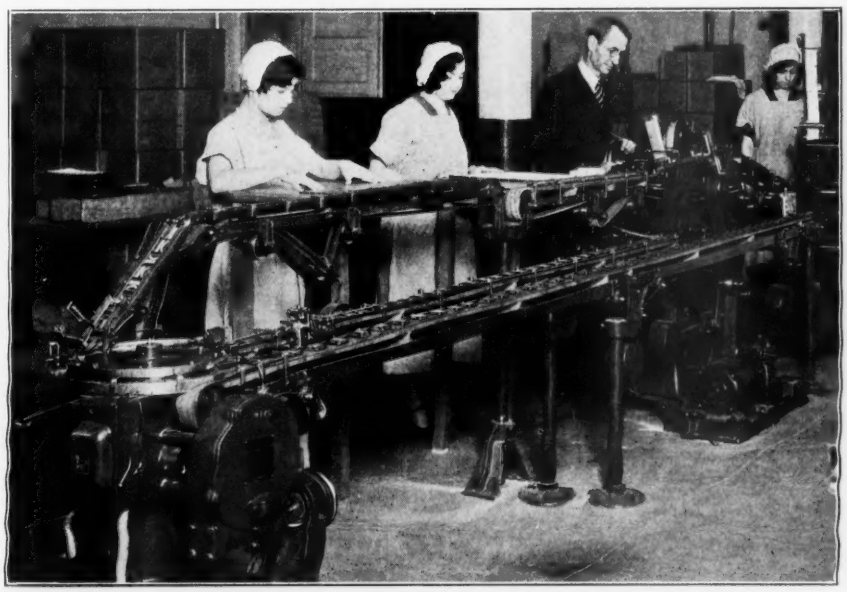
**In attempting to make possible automatic filling and packing of Ex-Lax, the problem of putting covers on tin cans by other than hand proved the stumbling block. With this problem solved, the rest of the operation was comparatively simple.**

WITH the belief—justified by the cost accounting department of his company—that the investment of $10,000 in a machine that will eliminate the labor of one girl is an excellent investment, Mr. Kiss, production manager of the Ex-Lax Manufacturing Company, is continually striving to develop new equipment that will reduce costs in the production of the company's two products — a chocolate and a fig laxative.

The two products of the company have a world-wide demand, yet the total output is completely produced at the company's one plant in Brooklyn, N. Y. As the business grows, Mr. Kiss finds that while the offices of the other departments of the company must have more space, the manufacturing department is continually economizing in space —also due to the development of automatic machinery.

In a recent analysis of the company's present status from a production viewpoint, Mr. Kiss determined that he was producing in a comparatively small plant and with a force of 70 people, an amount of goods—4 tons of laxative tablets per day—that fifteen years ago would have taken a block and one-half of floor space and 2,400 employees.

One of the latest developments at this plant is a machine that not only automatically puts the covers on the flat rectangular shaped cans in which Ex-Lax is packed, but also places the circulars in the cans, places the tablets in the can, and does all this at the rate of a gross per minute.



**The second girl to the right is feeding can bottoms. These bottoms move further to *the right to the circular feed in front of the man in the picture.* At this point the circulars are placed in the bottom of the can. The bottoms then move further to the *right and the tablet wrapping machine puts the cake in the* bottom. The bottoms then move to the left along the inside conveyor. The girl at the left feeds the can covers *which travel down the incline and meet the filled can bottoms.* The closed package returns along the belt conveyor at the front of the picture.**

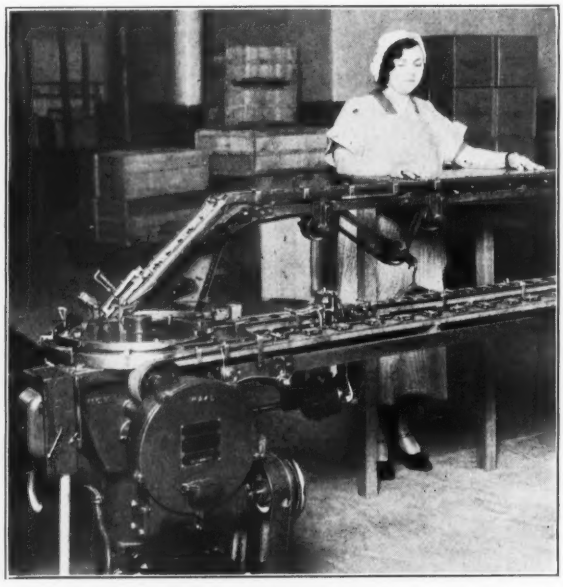
Under the old method in use the tablets of laxative — one tablet which may be broken into six parts is placed in each can —were fed in magazines to the automatic machine that wrapped the tablets in foil. This wrapping in foil was the only automatic operation. After the tablets were wrapped, a circular and a wrapped tablet were placed in the bottoms of the cans, after which the tops were placed on the cans.

It was necessary, under this method, to place the bottoms of the cans on large cardboards so that the cans could be moved along the tables in groups and save handling the in-

dividual cans as much as possible. The machine that puts the covers on the cans is the first of its kind that has been developed. The development of this machine was carried on by special Production Machines, Inc., a subsidiary of the Pneumatic Scale Company of Norfolk Downs, Mass. This development was carried on at the request of, and at the expense of the Ex-Lax company.

The capping machine was first developed as a single unit, but in operation in the Ex-Lax plant it is now merely a step in the entire packing operation. Heretofore only the wrapping of the tablets was done by automatic machinery. In the very near future the tablets will be wrapped, packed in cans, and bundled in dozens in one continuous operation at the rate of a gross of boxes of Ex-Lax per minute.

The continuous operation is now carried on to the point of bundling in dozen lots. The bundling machine is still to be installed. As the operation now stands, magazines carrying the tablets are fed to the machine. The bottoms of the cans as well as the tops of the cans are fed to the machine. The machine wraps the tablets in foil; places a circular in the bottom of the can; places the wrapped tablets in the can; puts the cover on the can.



**A close view of the can capping machine, showing the girl feeding the covers to the machine.**

A comparison of the labor necessary to produce one gross of cans per minute under the old and new methods is as follows:

### Old Method

1 girl stacking tablets of laxative.
1 girl placing tablets in magazine preparatory to wrapping in foil by machine.
1½ girls placing circulars in bottoms of cans.
1 girl laying bottoms of cans on cardboards preparatory to filling.
2 girls placing tablets in cans.
1 girl taking away cans on cardboards.
11 girls to place covers on cans.

18½ girls

### New Method

1 girl to feed the tablets in magazines of sixty pieces each.
1 girl to place the bottoms of the cans on the conveyor belt.
1 girl to place the covers of cans on the conveyor belts.
1 girl to act as watcher.

4 girls

It will be seen, therefore, that the new method up to the point of finishing the cans will save the labor of 14½ girls for a single run of one gross of boxes per minute. More than this, states Mr. Kiss, the new method occupies only one-fifth of the floor space accupied by the old method at the same rate of production.

While the machine that puts the covers on the cans was first of hopper design, the covers of the cans being fed into a hopper that picked them up and continued them on their journey, Mr. Kiss has found that for the high rate of speed that he employs, this method is not desirable. He is of the opinion that for a speed of eighty cans per minute the hopper method might be satisfactory. But with the cans that Ex-Lax products are packed in, the high speed produces scratching of the tops in the hopper method. Therefore, the method in us at the Ex-Lax plant is the placing of the covers on a table flush with the conveyor belt. From the table the covers are pushed onto the conveyor belt.

At the present time a case of bottoms of cans is opened at the top of the case. The bottoms are lifted out of the case and placed on the conveyor belt. The same operation is carried on with the tops of the cans.

In the very near future the cases of the bottoms of the cans and the tops of the cans will have a removable side. These cases with the side removed will be placed on a platform alongside of the table flush with the conveyor belt. The tops and bottoms of the cans will then be fed onto the conveyor belts by just pushing a layer of tops or bottoms along the table and onto the belt. After the first layer of tops or bottoms is fed onto the belt, the operator will push a foot peddle which will raise the case up so that the next layer of tops or bottoms is flush with the conveyor belt. This will save considerable time and labor in handling the cans.

The placing of the covers on the cans by automatic machinery—a step without which the continuous operation of packing would be impossible—is particularly interesting. A can bottom moves along the conveyor belt until it strikes a cover which moves down at an angle to the plane of movement of the can bottom. At this point the cover is at an angle with the can bottom, but one side of the top is in

*(Continued on page 514)*

# *West Australian* Sandalwood Oil *Obtained from Santalum Spicatum*

**The sustained short position of the Market for East Indian Sandalwood Oil has renewed interest in the sandalwood oil obtained from Santalum Spicatum in West Australia. Although use of this oil for official medicinal preparations is allowed in**

**France, the U. S. P. fails to recognize it. Its use in this country is therefore restricted to products that are not stated to contain sandalwood oil, or that are not required by the U. S. P. or N. F. to use the official oil.**

By Edward Swallow, Ph. G.

AS CONSIDERABLE interest is being evinced by the medical profession and the drug manufacturers of the United States in West Australian sandalwood oil, the following information may be appreciated at this time when the price of the East Indian sandalwood oil, the official kind, has risen considerable.

The demand abroad for Australian sandalwood oil from santalum spicatum has been increasing with leaps and bounds during the past few years and it is only because the U. S. P. does not recognize this product and consequently the Food, Drug and Insecticide Administration debars it from entry into this country, except for certain uses, that large amounts of West Australian sandalwood oil, obtained from santalum spicatum, are not being used by the drug trade of America.

The Australian Government controls the source of supplies of the wood from which this oil is produced. There is no less than one million acres of land where this santalum spicatum and other species grown wild so that an unlimited source of supply is available.

Australian sandalwood oil has been placed in the French Codex for the past year and has been proposed for inclusion in the British Codex. This oil, obtained from santalum spicatum, has been tested out in regard to its therapeutic action by several of the most prominent American medical specialists in venereal diseases and their opinion indicates very clearly that the drug product from far off Australian wilds has a very valuable place in materia medica as a remedy for gonnorhoea and as a disinfectant for the urinary tract.

It may be mentioned that such interest has been aroused in this particular sandalwood oil that the United States officials are making searching inquiries from the distillers of this drug for the purpose of learning if the supply can be assured on a permanent basis so that our manufacturers and the drug trade generally may be able to get supplies at all times of a standardized character and at a reasonable price.

The various kinds of so-called sandalwood oils produced from other sources than the East Indian or official sandalwood oil obtained from santalum album, has caused more or less confusion in the minds of both the pharmacists and government authorities in most countries of the world.

Generally speaking, the great majority of foreign pharmacopoeias recognize only the sandalwood oil is distilled from the wood of the santalum album, therefore, it follows that in these countries where this drug is officially recognized as a medicinal agent, other oils obtained from different sources may not be used as substitutes for the recognized drug.

As the santolol content is the chief medicinal constituent of the official drug and the standard requirement of most pharmacopoeias calls for not less than 90% of this medicinal agent, those so-called sandalwood oils that do not contain this substance or contain it in less proportions, evidently are mis-named and have no value as medicinal agents.

On the other hand, any sandalwood oil obtained from a recognized species of santalum, such as the Australian sandalwood oil, that is distilled from santalum spicatum, having a 90 to 94% santolol content, would appear to meet the legal requirements of this drug, even though it is obtained from a different variety of sandalwood.

From a medical standpoint, the small difference existing as to the particular source of Australian sandalwood oil, obtained from santalum spicatum, and the East Indian sandalwood, distilled from santalum album, makes no appreciable distinction between the two oils when considered as therapeutic agents, which is all the medical profession is concerned with.

### Oil Endorsed Abroad

This particular Australian sandalwood oil has received the endorsement of the medical profession in Australia, and a recent report from the leading specialist in venereal diseases in London, England, not only supports this endorsement but in stating that this Australian sandalwood oil is equal in medical value to the official sandalwood oil, actually draws attention to the fact of it being more easily tolerated by the patient—a great advantage generally.

Professor Emile Perrot, of Paris, France, has examined this particular Australian sandalwood oil and this famous chemist says "The oil of Australian sandalwood—dealing only with that of santalum spicatum—seems to give identical results medicinally to those obtained with 01. santalum album, with the added advantage of being in general better supported by the patient."

Dr. Percy May, the well-known chemist of London, states the case for this particular Australian sandalwood oil in a common sense manner: "Although such properties as optical rotation are interesting to the chemist as tending to throw some light on the chemical relationship of the oils from different sources, the crucial question from the pharmaceutical point of view is that of therapeutic effect. If West Australian sandalwood oil is found in practice to be as good medicinally as the East Indian oil, then there can be no good reason why it should not be included in the pharmacopoeias of the world in view of the fact that the uniform quality of good commercial oils enables a specification to be drawn up to exclude all but the good oils."

It may be well to point out that a producer of Australian sandalwood oil, distilled from santalum spicatum, has arranged with the Australian Government authorities through the General Control of Customs, Melbourne, to standardize all of this particular kind of oil before being used in Australia or shipped out from that country. In this manner, this brand of Australian sandalwood oil, obtained from santalum spicatum, has a guarantee of purity and quality generally that in addition to its santolol content being constant and more than meeting the requirements of the official sandalwood oil in this vital respect, justifies its inclusion in all pharmacopoeias either as a separate item or included in the legal requirements covering the East Indian sandalwood oil.

The suggestion is offered that as this particular Australian sandalwood oil is the equal in medicinal value to the official sandalwood oil and a government practically guarantees its purity and strength, and freedom from any form of adulteration whatever that "Medicinal sandalwood oil" should include both the East Indian oil and this particular Australian sandalwood oil, so that either may be used in medicine and by the manufacturers of sandalwood oil capsules, and the pharmacists generally.

The writer, an experienced hospital pharmacist, is of the opinion that the physician when prescribing for his patient has only one thing in his mind—the action of the drug he orders. Differences in rotations and the fact that one drug may be obtained from one member of a certain family and another from another member of the same family—both having a common botanical origin—does not interest the man of medicine.

What the physician wants are results and as there can be no shadow of a doubt but that this Australian sandalwood oil under discussion is fully equal in medicinal value and therapeutic effect to the official sandalwood oil and moreover is tolerated better by the patient, it might well happen that many physicians would prefer to use this particular drug.

The mere fact that owing to sandalwood oil being introduced into medicinal use from India, where in the regions of Mysore and other territory, "the rulers of the country have from time immemorial, exercised a monopoly over sandalwood album and its oil" should not prevent the legal use of this Australian sandalwood oil as a recognized medicine meeting the requirements of the medical profession in therapeutic value and coming to the patient and pharmacist more economically.

In this connection it may be pointed out that pharmacopoeias are not interested in supporting certain commercial interests—keeping a monopoly of any kind alive.

In regard to the chemical constituents of the official sandalwood oil, distilled from santalum album, the percentage of santalol furnishes the basis of the official test. The following analysis made by various well-known chemists among which is a recent report made by Seil, Putt and Rusby, Inc., New York, and one from the Australian Government Customs Control, should afford interesting reading:

| *Seil, Putt & Rusby* | *Percy May* | *Austral.* | *W. H. Simmons* | *USP* |
|---|---|---|---|---|
| *New York* | *London* | *Customs* | *London* | *Stan.* |
| 1928 | 1928 | 1927 | 1927 | |
| 94.65% | 96% | 92.5–96% | 95% | 90% |

(*Continued on page 514*)

# EMULSIFICATIONS
# HOMOGENIZATIONS
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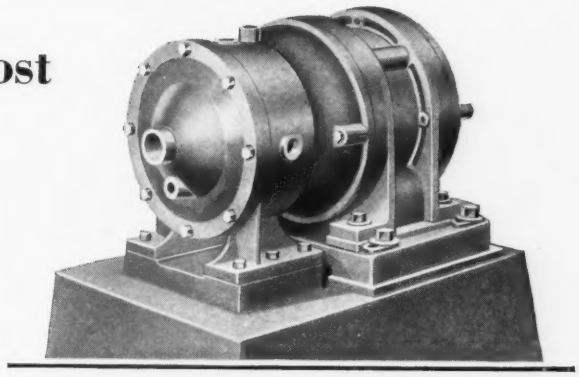

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Because the Spring Stopper seal is threaded, and screws into a thread inside the neck of the bottle, it is easy for you to apply, by hand or automatic machinery.

Let us send you sample closures of porcelain, glass or bakelite, together with stock bottles for tests in your own laboratory. Prove to yourself, as have many nationally known manufacturers, the protective value, appearance and convenience in use of this closure.

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# Sales Research *and* Co-ordination*

**Ever so many houses -- and some of them large and prominent houses, do not employ Sales Research. Dr. Kirby tells some of the facts concerning this important factor in increasing sales volume. Advertising alone will not sell everything and anything, says R. D. Keim, who lays down five fundamental points for co-ordination of sales and advertising.**

ON THE value of Sales Research, the paper of Dr. Frank B. Kirby, Abbott Laboratories, read by Floyd Thayer, Abbott Laboratories, gave the reasons why Sales Research is employed, how it is employed, and what it accomplishes.

As to the first step undertaken by Abbott, said Dr. Kirby:

"We began with enough field work to wreck or demonstrate any theory on the subject of sales research. Having found a likable formula we put it to the test and discarded or accepted it as experience dictated. Sales Research pays provided that it does not end in the mere compilation of figures, but that the action those figures indicate should be taken."

As to the purpose in mind, he further stated:

"Sales Research should be undertaken with one major object, namely, increasing your sales total while decreasing your sales cost. All of us have access to the same basic figures but fortunately each particular house works on policies just that much different from the other so that none can adopt the exact formula used by another house."

The method is in part described as follows:

"The factors used are to predetermine the sales potential or buying power per territory, and consist of population, income, actual prospects, education, life insurance policies, telephones in use, automobiles, etc. Other elements may be added or some of these eliminated. Our experience indicates that an analysis by counties is the best, and should be the first step. Every sales territory is thereby given a sales value by which we can know definitely at stated intervals whether it is producing up to standard. Comparative records, territory by territory, are therefore really at the same time comparisons of corresponding salesmen."

Dr. Kirby calls attention to the fact that jobbers must be considered in evaluating sales areas. Said Dr. Kirby:

"Your jobber distribution has a distinct bearing in outlining territories and will lead to a study of territories covered by each jobber and the amount of their sales of your goods county by county. Or the problem may resolve itself into a pool of all jobber business in each district to be redistributed to each salesman on his personal record covering any several work elements you wish to put into it."

Defending Sales Research from some of its critics, Dr. Kirby remarked:

"Sales Research when properly at work will assemble only those figures which say something. It is not a piece of mental exercise in arithmetic. Records for reference spell economy of operation. Profitable Sales Research eliminates morgue records which being dead should be buried. Applied research is active, interesting and effective for good."

Bringing the very interesting topic of the new activities of the Department of Agriculture into the discussion, Dr. Kirby said:

"The questions are raised, 'Does it pay to advertise this product ?' 'What were the returns last year from $25,000 spent in advertising so and so and should we in-

Dr. Frank B. Kirby

*Extracted from the papers presented by F. B. Kirby and R. D. Keim at the A. D. M. A. meeting.

crease or decrease the amount this year and why ?' Considering the trend of the market and the situation in Washington should we kill this product and boost that instead and why?' "

"Total sales or consumption for several years are laid against estimated totals for the year ahead or for the long swing if preferred. It is relatively easy once having the forms prepared to make these comparisons. We now know better than to expect twice the sales from a territory with half the potential."

* * * * *

Speaking on co-ordination of Selling and Advertising and stating that the idea that advertising is a sole means to an end must be abandoned, R. D. Keim, general sales manager of E. R. Squibb & Company, said "There are five fundamental steps which must be taken to develop a sound basis on which co-ordinated sales and advertising can be put forth."

**R. D. Keim**

The five steps given by Mr. Keim are:

*Number One*—The production of a product of standard quality and merit, and one that will have real usefulness.

*Number Two*—A complete analysis of the potential markets for the product.

*Number Three*—A sound plan for the marketing of the product taking into consideration the vital necessity of securing widest possible distribution on the most economical basis and the active co-operation of the sale of the same by retail and wholesale distributors.

*Number Four*—The development of an advertising theme that will have a strong consumers' appeal and that will dovetail to the minutest degree with the sales or marketing plan agreed upon, and providing dealers' aids that will tie up the co-operation of all distributors to increase sales.

*Number Five*—A well conceived plan to sell the entire marketing and advertising campaign to the sales organization of the manufacturer, if he has one, or to the sales organization of the distributors who will market the product.

The best proof that advertising and sales must be co-ordinated, Mr. Keim remarks, is that the salesmen must be sold on the advertising program.

Said Mr. Keim:

"We have learned first and foremost that our big job has been to actually sell the force of our advertising to our sales organization and our distributors. With salesmen we have proven to our satisfaction that this can only be done by presenting our advertising program in small group meetings and to thresh out in round table conferences the purpose and power of the advertising itself. In other words, salesmen must be given the opportunity to express their opinion of the advertisements themselves.

"As has been said and demonstrated, there never was formulated an advertising campaign that received the approval of an entire sales-staff, and this is only natural for the mental reaction of different temperaments toward any publicity campaign will vary to an unlimited extent.

"Therefore, it is necessary to permit salesmen to give vent to their reactions to any layout, copy or selection of advertising media in order that their sales producting instinct will be focused on the one point for which advertising is created, viz., to produce consumer's preference for the products advertised.

"This cannot be accomplished by holding large sales conventions which, with all their stage settings and imposing figures of circulation of media, are often held to cram down the throats of salesmen, so to speak, the advertising campaign with the expectation of getting their co-ordinated sales effort.

"Furthermore, the ammunition given to salesmen in the way of sales and advertising portfolios and sales aids, must be carefully prepared and individual or at least small group instruction must be given in the use of the same.

"Right here let me emphasize that such instruction must not be carried on or given in pedagogic manner. Successful Salesmen are very human and temperamental; you cannot convince them of the pulling power of your advertising and your sales schemes and plans if you treat them like school boys."

A warning against covering too large a territory rather than concentrating advertising efforts in a smaller area was given by Mr. Keim in the following words:

"Advertising managers will be wiser if they will gauge their advertising campaigns more carefully and back up sales effectives in a smaller area, thus moving the merchandise off the dealers' shelves, rather than spreading their publicity effort over too large a territory and letting the dealer hold the bag.

"Nothing will so speedily break down the faith of a sales organization in the effectiveness of advertising and alienate co-ordinated effort as an advertising campaign that is so thin that it will not turn over the goods sold, and what is still worse is the dissatisfaction and disappointment on the part of the dealer who, at best, is always suspicious that he is going to be made the goat whenever a new product is presented to him with the promise of an advertising campaign behind it."

# *Correct Preparation of*
# Citrate of Magnesia
# *Prevents Sedimentation*

**More careful preparation of this common laxative was found to be all that was necessary for preventation of the spoilage that was caused by nothing more than a deficient amount of citric acid.**

By H. A. Barnby and E. L. Voight

*Research Laboratories, Glass Container Association**

THE official solution of citrate of magnesia is founded on a preparation proposed by Roge Delabarre, and improved by Rabourdin of Paris. The first formula which resembles closely the one used to-day was published in the second edition of the United States Pharmacopoeia of 1850. The product is a water solution of magnesium citrate impregnated with carbon dioxide and sweetened with syrup. When properly prepared it is a clear liquid having an agreeable taste like that of a very acid lemonade. The carbonation is usually secured by dropping into the acid liquid immediately before sealing a small quantity of sodium or potassium bicarbonate. The gas formed through interaction of the latter with the excess citric acid serves to charge the liquid with carbon dioxide rendering it more pleasing to the taste. The magnesium citrate originates from the reaction of magnesium carbonate with the citric acid.

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**Note the increased amount of sediment with decreasing weight of excess acid**

Practically all the citrate that is marketed in quantity to-day is made according to the U. S. Pharmacopoeia Ninth Revision of 1916 or the Tenth Revision of 1926. These formulae call for very definite quantities of magnesium carbonate, citric acid, sugar syrup, oil of lemon, bicarbonate of soda (or potassium) and water. Also the method of combining each of these constituents is carefully set down. With the conditions of manufacture so well defined it would seem unlikely that variations should exist in the final product.

It is apparent, however, from the instance in question that manufacturers and retailers of citrate still have occasional annoyance from this sedimentation in their goods. Hence some remarks relating to the findings in the present case may be of interest:

The exact nature and composition of this white granular precipitate was studied by Procter* and found to be crystallized magnesium citrate in combination with fourteen moles of water of crystallization. ($Mg_3(C_6H_5O_7)_2+14\,H_2O$). The size and physical appearance of the deposit depends upon the crystal size which seemed to vary with the length and temperature of storage as well as the acidity of the citrate. From results of preliminary tests made on the influence of variations in free citric acid upon precipitation it appeared advisable to consider this factor first.

## Spoilage Reported

A manufacturer of citrate of magnesia reported to this Laboratory a type of spoilage occurring in his product requesting information which would prevent the trouble. Specifically, the difficulty consisted in the separation of a white granular (and at times crystalline) sediment from the clear citrate solution after a few months in storage. The information desired was what the precipitate consisted of, why it formed in some bottles and not in others and, lastly, what method could be used to reclaim a large stock of the bottled solution which had thus sedimented in storage.

Spoilage of this type in citrate of magnesia is by no means a new problem. In U. S. Dispensatories and drug journals prior to 1907 there are references to this white granular precipitate and as a precaution against its occurrence, methods of manufacture usually recommended that the "solution should be freshly prepared when wanted." Such a precaution is of little assistance to-day as present trade practice places the pharmacist more and more in the position of a distributor of already prepared products. Hence the matter of extending the storage life of his merchandise is increasingly important.

The manufacturer whose product was involved was following U. S. P. IX in preparing his product. A check-up was made on the separated samples as to the amount of excess or free citric acid per bottle. Analyses showed from 8.0 to 8.5 grams of free citric acid. The same values determined on samples in good condition purchased in the market averaged 13.35 grams per bottle. This suggested at once that the precipitation may have resulted from a lack of excess acid necessary to hold the magnesium citrate in solution. Samples of the inquiring manufacturer's goods which had not shown this granular deposit after four months' storage were checked for free acid and found to contain from 9.19 to 9.72 grams per bottle. These last results further indicated that the manufacturer was operating too close to the border line of necessary free acid since 9.18 grams of excess acid held up his citrate for at least four months whereas 8.5 grams excess brought about precipitation in a much shorter time.

In order to test out the validity of these observations samples of a satisfactory citrate purchased in the retail market and made into a series having varying amounts of free citric acid, ranging from 13.05 grams to 4.75 grams per bottle. Within these limits of acidity were represented all the samples thus far examined. A similar series was made using fresh citrate from the company having the spoilage by adjusting the excess citric acid to cover this same free acid range. The figure shows clearly the amounts of precipitation resulting from the different acid strengths after the latter samples had stood at 45°F for 30 days. The volumes of precipitate increased as the amount of free acid decreased.

## Excess or Surplus of Acid Indicated

These results indicated clearly that either insufficient citric acid was being used or else too large a portion of the desired excess acid was being neutralized by the magnesium carbonate or sodium bicarbonate. Since the latter was added as a pressed slug, little chance for quantity variation was evident there. The chemicals used were said to be U. S. P. grade of reliable manufacture. A sample prepared in the Laboratories from the same formula using U. S. P. chemicals showed a free citric acid content of 10.9 grams per bottle, over 2.5 grams more than the manufacturer's goods tested. The conclusion finally drawn was that inaccuracy in weighing the magnesium carbonate and citric acid or variable moisture content in the latter were responsible for the shortage of acid and spoilage in the product.

## Salvaging of Citrate Difficult

In as much as the manufacturer of the spoiled citrate had a large stock of the precipitated goods in storage possible ways of reclaiming the same were considered. The first effort was to remove the clear liquid and crystalline cake from the bottles. This was found impossible without painstaking effort in first crunching up the deposit with a rod. Even heating the bottles to 170°F after breaking up the cake would not dissolve it appreciably. The combination of added citric acid andhe at to 170°F was next tried but the results were not encouraging as

a commercial process. The only remaining possibility of salvaging the product was to pour off and filter the clear liquid of several hundred bottles. By analysis, the deficiency of magnesium carbonate and citric acid in the liquor could be determined and the difference added. Thus far, this method of reconstituting the citrate seemed to be a satisfactory way out. But when it came to the matter of adding the bicarbonate of soda slug to produce the desired efferescence from carbon dioxide gas, a new difficulty arose.

When the original citrate was prepared, each bottle received its slug of sodium bicarbonate and while the magnesium citrate was crystallizing out of solution, the sodium slug, dissolving as sodium citrate, remained in solution. Now, in reconstituting the product, to add a second slug would introduce a double dosage of sodium citrate. Since the latter is thought to have a different therapeutic effect from the magnesium citrate and because the resulting product would not be in accordance with the U. S. P. IX formula the second bicarbonate slug could not be used.

It was then recommended to the manufacturer that he follow the suggested procedure up to the point of charging his bottles with the bicarbonate slug before sealing. Then by cooling the liquid in the filled bottles they might be carbonated the same as is done in the beverage trade using a small hand carbonator.

Whether it is feasible economically for a manufacturer to go to the extra expense and effort to reconstitute a citrate which has separated will depend upon the quantity of goods to be salvaged, the equipment and plant facilities available and the labor cost. Furthermore, if the deposit is badly caked in the bottles, the cost of removing it might approximate the container cost so that in the end the net saving in salvaging the citrate would be small.

In conclusion to reduce the above considerations to a single thought, it is obvious that the citrate manufacturer should center his attention upon the preparation of his product rather than upon the salvaging of improperly made goods. Even though juice competition causes him to economize on every step he should see that the purity and weight of chemicals used in his citrate are controlled so as to maintain the correct final acidity. It is just another instance where "an ounce of prevention is worth a pound of cure."

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The suit of Colgate and Company, a unit of the Colgate-Palmolive Peet Company, The Spray Drying Corporation, and the Spray Dryer Process Corporation against the Procter and Gamble Company for alleged infringement of patent rights was dismissed by Federal Judge Robert R. Nevin, Cincinnati, Ohio, settlement having been made out of court.

The suit concerned the manufacture of so-called "beads" of soap by a spray process. According to the terms of the agreement all parties to the suit will share the costs on a pro rata basis.

## { *Industry's Bookshelf* }

**Popular Science Talks.** A series of popular lectures on twelve interesting topics. Published by Philadelphia College of Pharmacy and Science, Philadelphia. 249 pages. $1.

The lectures constituting this volume represent the effort of the Philadelphia College of Pharmacy and Science to contribute to the educational welfare of the community by means of popular talks on scientific subjects. These lectures are given annually by members of the faculty of the college and cover a broad and interesting field. They are presented in non-technical form without the sacrifice of scientific accuracy or completeness. In most instances their presentation to the auditors has been supplemented by means of lantern slides and appropriate experiments or specimens.

The twelve lectures constituting the present volume, covering the season 1927-1928, are: Romance of cookery, by Dr. Charles H. LaWall; relm of the X-ray, Ivor Griffith; building stones, Dr. J. W. Sturmer; preservation of foods, Dr. Louis Gershenfeld; sumac and poison ivy, Dr. H. C. Wood; ice—wet and dry, Paul Q. Card; rare elements, Dr. F. P. Stroup; European flowers in commerce, Dr. E. Fullerton Cook; flame, George Wesley Perkins; and animals that live on man, Martin S. Dunn.

These lectures will be found interesting reading by those seeking a better understanding of the present status and application of scientific knowledge. The book can be recommended with confidence to high school students interested in scientific subjects.

**Qualitative Analysis for Students of Pharmacy and Medicine.** By Charles B. Jordan, Ph.C., M.S., professor of pharmaceutical chemistry and dean of School of Pharmacy, Purdue University. Cloth, 5½ by 8 inches. 169 pages. McGraw-Hill Book Company, Inc., New York City. $2.50

The text shows an advance over that of a considerable number of the older works on the subject of qualitative analysis. The author has utilized modern theories and their application to medicine and pharmacology. Although it is presupposed that a student is not ready for the study of qualitative analysis until he has had a course in general chemistry, he will be able to understand the points of contacts after he has diligently perused the introductory chapter of this book, which stands one of the best presentations of the elements and theories of chemistry of importance to students. The defintions are well stated and the arrangement is logical.

Aside from the introduction, or Part I, the subject matter of the book includes: Part II, covering metal analysis, and the reactions of metalions; their analysis being considered by the classifications into groups. Part III, is devoted to acid analysis, the acids being divided into seven groups, and the anions classified according to their behavior in presence of certain reagents. Part III also contains a scheme of complete systematic analysis which should prove helpful to students and laboratory workers.

**Year Book, 1926, of the American Pharmaceutical Association.** Cloth, 614 pages. Published by the Association.

This volume constitutes the sixty-ninth annual report on the progress of pharmacy, the constitution, by-laws and list of members. The report on the progress of pharmacy was prepared by Dr. A. G. DuMez, dean of pharmacy, University of Maryland, editor of the Year Book, with the assistance of a staff of twenty-three collaborators.

The abstracts, which are drawn from American and foreign pharmaceutical literature, are classified by subjects. The volume carries as a frontispiece a full-page portrait of Dr. Theodore J. Bradley, president of the association, 1926-1927.

# Patents Issued

## UNITED STATES PATENTS

### Non-Poisonous Coloring Matters for Cosmetics

Non-poisonous coloring matters of red shades used for cosmetic purposes comprise lakes with aluminum as a metallic base. At least one of the dyestuffs has a halogen atom in its molecule and at least one of the same is of phenolic character. The lake in one case is the precipitate of a water soluble halogen-derivative of fluorescein with a soluble aluminum salt in the presence of sodium benzoate. J. Culmann, Rosebank and E. Ahrens, Stapleton, N. Y., assignors, G. Siegle Corp. of America, Inc., New York, N. Y. United States Patent No. 1,702,227, filed June 20, 1927.

### Making Fatty Acids

A process of making fatty acids consists in converting into their methyl ketones the fatty acids contained in the fraction of the raw cocinic acids boiling under a pressure of ten millimeters at a temperature of about 163 to 180 degrees C. The ketones thus obtained are treated with an oxidizing agent and the resulting mixtures are converted into the polybasic alcohols esters.

### Pinacol

Pinacol is produced by reacting together acetone or its homologues, aluminum and a mercury salt soluble in the ketone and decomposable by aluminum, which comprises using carbon tetrachloride as a reaction producing agent. The carbon tetrachloride is introduced into the mixture of the other ingredients intermittently one portion initially and the other portions as the reaction slows down so as to prevent violence of reaction, and thereafter decomposing the reaction product and separating out the solution of pinacol. H. Berlin, New York, N. Y., assignor, International Patents Development Co., Wilmington, Del. United States Patent No. 1,703,220, filed Dec. 20, 1926.

### New 6-Alkoxy-8-Aminoquinolines

These compounds are generally whitish crystalline powders forming soluble salts with hydrochloric acid. These substances exhibit antipyretic properties and exert a strong specific destroying action on blood parasites. W. Schulemann, Vohwinkel-on-the-Rhine and F. Schoenheofer and F. Mietzsch, Elberfeld-on-the-Rhine, Germany, assignors, Winthrop Chemical Co., Inc., New York, N. Y. United States Patent No. 1,703,365, filed Jan. 30, 1926.

### Anthelmintic Medicinal Compound

An antithelmintic product comprises tetrachloroethylene and means for protecting this substance from actinic rays. This medicinal is contained in a soluble gelatine capsule. C. N. Anderson, assignor, Parke, Davis & Co., Detroit, Mich. United States Patent No. 1, 703,377, filed Feb. 6, 1928.

### Toilet and Detergent Composition

A detergent composition is made in the form of a solid, homogeneous, stable body containing as essential ingredients, about twelve parts by weight of soap, two parts by weight of borax, five parts by weight of petroleum jelly and twenty parts by weight of water B. N. Sokoloff, Ridgefield, N. J. United States Patent No. 1,703,602, filed May 20, 1925.

### Complex Antimony Compounds

These compounds are made by the interaction of an antimonyl compound of such a polyphenol that contains two hydroxyl groups in ortho position to each other with a neutral alkali metal salt of a sulphonic acid of such a polyphenol. H. Hahl, Elberfeld, Germany, assignor, Winthrop Chemical Co. Inc., New York, N. Y. United States Patent No. 1,703,732, filed Feb. 10, 1927.

## BRITISH PATENTS

### Alkylaminoalkylamino Compounds as Synthetic Drugs

This patent is concerned with the manufacture of drugs of this type in which the aliphatic side chain is interrupted by oxygen or sulphur atoms or by secondary or tertiary amino groups. I. G. Farbenindustrie A. G., Frankfort-on-Main, Germany and A. Carpmael, London, England, British Patent No. 302,984, filed June 23, 1927.

The second patent on this same matter is concerned with a process in which aminophenols or diamines of the benzene series or their derivatives or substitution products are converted into more strongly basic polyamino derivatives by introducing more than one alkylaminoalkyl group into the same or different amino groups of the benzene nucleus. I. G. Farbenindustrie A. G., Frankfort-on-Main, Germany and A. Carpmael, London, England, British Patent No. 302,985, filed June 24, 1927.

### Isoeugenol

The mixture of alkyoxyisoeugenol and alkoxy isochavibetol, prepared, for example, by heating safrol with alcoholic caustic potash under pressure is separated by virtue of the difference in the solubilities of their calcium salts in alcohol, the calcium salt of the alkoxyisochavibetol being the less soluble. The separated alkoxyisochavibetol may be methylated and then hydrolyzed in order to produce isoeugenol. The latter is also produced from the separated alkoxyisoeugenol by hydrolysis of the alkoxymethoxy group, followed by methylation. In an example safrol is heated with caustic potash and methyl alcohol in an autoclave, and the resulting mixture of methoxyisoeugenol and methoxyisochavibetol, after purification by washing, extraction and distillation, is treated with calcium oxide or hydrate and denatured alcohol or ethyl alcohol. The insoluble calcium salt of methoxyisochavibetol is filtered off, washed with alcohol and acidified to remove the calcium. Before acidifying, the sodium salt may be formed by heating with aqueous soda ash, the resulting calcium carbonate being filtered off. The free methoxyisoeugenol is obtained by distilling off alcohol from the soluble calcium salt solution and acidifying. Isoeugenol is then produced by hydrolyzing the methoxymethoxy group by heating the alcoholic solution with aqueous hydrochloric acid, and methhylating by means of dimethyl sulphate in the presence of caustic soda. T. S. Carswell, assignor, Graesser Monsanto Chemical Works, Ltd., Ruabon, Denbighshire, England. British Patent No. 303,021, filed December 24, 1928.

### Alkoxyaminphenols as Synthetic Drugs

Alkoxyaminphenols are converted into more basic poyamino derivatives by the introduction of alkylaminoalkyl groups into the hydroxy and amino groups. The process may be carried out by converting an alkoxynitrophenol, by treatment, for example, with diethylaminoethyl chloride, into the corresponding alkoxydiethylaminoethoxynitrobenzene, reducing the latter to the corresponding amino compound and treating this with diethylaminoethyl chloride or other alkylaminoalkyl chloride. I. G. Farbenindustrie, A. G., Frankfort-on-Main, Germany. British Patent No. 303,097, filed June 23, 1927.

### Making Extracts

An apparatus for making extracts, etc. by steeping, comprises a number of containers, arranged for passing the liquor through them in series, each having therein a strainer at the lower part and a tubular strainer extending lengthwise through the material to be treated. The strainer has a valve and is connected at the top to the circulation pipe and at the bottom to the lower strainer. W. Buss, Basle, Switzerland. British Patent No. 295,869, filed Nov. 9, 1927.

### Capsules and Packing Apparatus

In apparatus wherein a filled lower half capsule is forced through a tapered guide before entering the upper half or cap, the guide is formed as a member arranged between the holders for the two capsule parts but is separate from both holders. The filled lower half capsule is carried in a holder on a rotary table to

(*Continued on page 510*)

# News of the Drug Industries

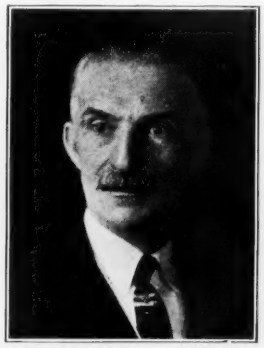
## A. D. M. A. Breaks Attendance Records In First Out-of-town Meeting

A RECORD attendance of 150 members and guests was reached by the American Drug Manufacturers' Association at the first meeting of that association since its institution to be held outside of New York. The meeting was staged at the Grove Park Inn, Asheville, N. C., May 2 to 7.

All the sessions were well attended and discussion was very active at all of them.

S. B. Penick, S. B. Penick & Co., was elected president for the coming year. Other officers elected are: First Vice-president, Dr. A. R. L. Dohme, Sharpe & Dohme; Second Vice-president, Nicholas J. Noyes, Eli Lilly & Co.; Third Vice-president, John F. Anderson, E. R. Squibb & Co.; Treasurer, Franklin Black, Charles Pfizer & Co.

**S. B. Penick**
**The New President**



**Dr. A. R. L. Dohme**
**First Vice-president**

Carson P. Frailey, who has been permanent Secretary of the association for many years was given a newly created position of Executive Vice-president and Secretary. This position is filled by the Executive Committee which also determines the compensation.

Two new members were elected to the association; the Cole Chemical Co., St. Louis; and Upsher-Smith Co., of Chicago.

The executive committee of the association now consists of O. W. Smith, Parke, Davis & Co.; Milton Campbell, H. K. Mulford Co.; J. H. Foy, Maltbie Chemical Co.; Dr. A. C. Boyleston, Mallinckrodt Chemical Works; C. G. Merrell, The Wm. S. Merrell Co.

The Scientific Section of the association occupied the program of the first two days, under the chairmanship of E. H. Volwiler, Abbott Laboratories.

Dr. M. Bye, The Wm. S. Merrell Co., opened the first session with the report of the sub-committee on Alkaloid and Drug Standards. With reference to F. E. Cascara Sagrada, reported Dr. Bye, it is not generally agreed that the anthraquine value is necessarily the true criterion of the value of the drug. Likewise on Tincture Opium Camphorated the morphine content is considered only one of the therapeutic factors.

With reference to Ephedrine, Dr. Bye reported that the readings of different investigators were not directly comparable as various physical or chemical criteria of worth were selected. Future work should be outlined with definite specifications as to nature of data desired.

The fact was brought out by A. H. Fiske that Cresol Compound U. S. P. is subject to three laws, viz.; Insecticide act from purpose of use which necessarily limits the inert ingredients such as water and glycerin; Food & drugs act from the standpoint of label statements; Federal caustic poison act if it contains more than 5% phenol.

It was Mr. Fiske's recommendation that the percentage of phenol must necessarily be limited not only because phenol is a somewhat weaker germicide then cresol, but also because it is more rapidly absorbed by the tissues of the higher animals and is consequently more dangerous. A method for the determination of phenol in the compound was given by Mr. Fiske.

Dr. C. E. Vanderkleed, Robert McNeil, read a new method of assay of Ma Huang for total alkaloids.

The report on Digestive Ferments and Glandular Products was read by David Klein, Wilson Laboratories. The following recommendations of the sub-committee of which Dr. Klein is chairman were accepted by the section:

1. The 1929 sample of Rennin be adopted as a tentative Reniun A. D. M. A. essentially meeting the N. F. requirements for strength.

**Dr. John F. Anderson**
**Third Vice-president**

**Carson P. Frailey**
**Vice-pres. and Secretary**

2. Further tests be made of the keeping quality of Rennin and its suitability for use as a standard.

3. Prypsin A be adopted as a Reference Prypsin A. D. M. A. essentially meeting the U. S. P. requirements.

4. A further study should be made of the Smith-Sorensen method.

5. A further study should be made of the Kirk Bile salts method.

6. The A. D. M. A. submit to the U. S. P. Revision Committee the modified Pepsin Assay method contained in this report, with a recommendation that it be adopted for U. S. P. XIth edition.

The reduction of the number of alcoholic menstrua now in the U. S. P. from 20 to 10 to be used in the preparation of fluid extracts, tinctures, solid and powdered extracts was recommended

by the report of the sub-committee on drug extracts of which Dr. F. O. Taylor, Parke, Davis & Co. is chairman.

Considerable discussion was evoked by F. W. Heyl's report of the sub-committee on Pharmacological Investigations when the subject of deterioration of Flower's Solution was brought up. Since the arsenite in the original solution oxidizes to arsenate on standing with a discoloring of the solution, the manufacturers would like to have the U. S. P. require arsenate in the first place. A further study of the therapeutic and toxic effect of the arsenate as compared with the arsenite was deemed necessary.

In digitalin assay, Dr. H. T. Graber, chairman of sub-committee on Pharmacological Assays reported that there is no choice between the following methods: U. S. P. 1 hour frog; M. L. D. 4 hour frog; M. L. D. 12 hour frog; M. L. D. guinea pig; M. L. D. cat (Magnus).

### Cod Liver Oil Report

The report of Dr. A. H. Holmes, The E. L. Patch Co., on Proposed Study of Methods for Quantatively Determining the Vitamin A and Vitamin D Content of Cod Liver Oil stated in part:

"The result of our work on the vitamin A method has shown that it is necessary to definitely specify the different types of diet used in the production and test feeding of the experimental animals, and to carefully regulate all other factors in standardizing these animals for test. The work to date indicates that such a procedure offers considerable hope of obtaining much more uniform results than has heretofore appeared to be possible. It appears that the time has now arrived when the procedure should be given a trial under a wider variety of conditions. Such a test experiment is essential if we are to determine whether these procedures which have been developed are applicable to average laboratory conditions.

"Before beginning laboratory work on methods for vitamin D assay the committee, with a view to determining which of the present methods offered the greatest promise of success, reviewed the published investigations bearing upon these methods. In this survey the following types of procedure were considered: (a) blood phosphorus determinations, (b) bone ash determinations, (c) radiograph examinations, (d) hydrogen-ion concentration of fices determination, and (e) McCollum-Shipley "line test" examination. The consideration of these procedures indicated that the one best suited for the problem at hand was the "line test" examination.

"Accordingly during the past year the four laboratories have conducted co-operative animal experiments employing the "line test" procedure. As in the case of vitamin A, a method for vitamin D assay is now offered for more extensive collaborative study."

### Hydrogen-ion Lively Subject

Hydrogen-ion concentration attracted more attention at the session of the Pharmaceutical Section than any other subject. Dr. Bye, chairman of the sub-committee on hydrogen-ion concentration reported that there is great variation in the results obtained by various laboratories in determining the ph value of certain preparations and that the methods of determination must be standardized so that the errors can be eliminated. It was the concensus of opinion that further work should be carried on in order to determine the hydrogen-ion concentration that will stabilize some of the pharmaceutical preparations that are now unstable. As to the ph value that gives the best therapeutic action to the product, this is to be determined only after stabilization has been accomplished.

The Food, Drug & Insecticide Administration through its changing regulations has further upset the book, "Standardized Titles and Formulas," so that 178 additional changes are necessary, reported Thurston Merrell, Chairman of the Committee on Catalog Simplification.

The general sessions opened with the president's report followed by the secretary's report.

Secretary Frailey called attention to the fact that trade-mark names should be first submitted to the Division of Drug Control for comment before they are used on labels. Oftimes these trade-marks are challenged by the government officials and the good made subject to seizures.

The work on antiseptics and malarial remedies, Secretary Frailey stated, was carried out by the Food, Drug & Insecticide Administration in a clear-cut way and there can be no doubt that the industry appreciates this progressive step. It is the opinion of the Secretary that the method can be similarly applied to other classes of preparations such as antipyretics, sedatives, tonics, laxatives, expectorants, etc., and should be, for after all it seems reasonable to suppose that the primary intent of the Statute is regularatory rather than punitive.

### Legislative Report

In his report on legislation, Horace W. Bigelow, Parke, Davis & Co., general counsel, reviewed the important legislation and court decisions of the past year. In this connection he spoke of the Jones Act which gives five years and $10,000 for prohibition violations.

A statement was made by Mr. Bigelow regarding the American Can Co. decision which states that Section 2 of the Clayton Act applies to price discrimination which tends to create a monopoly among the buyers as well as among the sellers.

The recent trade-marks decision of the U. S. Printing & Lithographing Co. vs. Griggs Cooper Co. which stated that a trade-mark did not apply even after it had been registered in the territory where it had not been employed was found by Mr. Bigelow to be entirely in harmony with other decisions on this question and completely in harmony with his own opinion of what had always been the interpretation of the law.

The second general session was given over to Sales Problems under the direction of S. DeWitt Clough, Abbott Laboratories, vice-chairman of the committee. Papers were contributed by Donal Merrell, The Wm. S. Merrell Co.; Fred A. Lawson, The E. L. Patch Co.; Frank B. Kirby, Abbott Laboratories; H. C. Dunn, Department of Commerce; Turner Currens, Norwich Pharmacal Co.; R. D. Keim, E. R. Squibb & Co.; R. M. Cain, Swan-Myers Co.; Harry C. Phibbs, Harry C. Phibbs Advertising Co. These papers are quoted on another page of this issue.

The third general session concluded the meeting with particular interest taken in the report on foreign trade by Kerro Knox, H. K. Mulford Co., who was answered by Thomas W. Delahanty, Department of Commerce.

### Resolution on Prohibition Enforcement

Resolutions were presented by Horace W. Bigelow and passed by the members. The resolutions follow:

RESOLVED, That the Executive Committee be and it is hereby authorized, empowered, and directed, upon the recommendation of the Committee on Uniform Cost Accounting, to enter into such arrangements with the Bureau of Internal Revenue with respect to equitable depreciation rates for pharmaceutical and biological industries as in the discretion of said Executive Committee seem proper and beneficial to such industries.

Whereas, The National Prohibition Act is entitled "An Act to prohibit intoxicating beverages and to regulate the manufacture, production, use, and sale of high-proof spirits for other than beverage purposes, and to insure an ample supply of alcohol and promote its use in scientific research and in the development of fuel, dye, and other lawful industries;" and

Whereas, Said law prohibits on the one hand the use and sale of intoxicating liquors for beverage purposes, while on the other hand permits and guarantees an ample supply of alcohol and the promotion of its use in scientific research and the development of industries which must use it for lawful purposes; and

Whereas, The members of the American Drug Manufacturers' Association are absolutely dependent upon this essential chemical raw material; and

Whereas, The Bureau of Prohibition of the Department of the Treasury is now properly functioning and efficiently administering the permissive features of the National Prohibition Act

in which the membership of the American Drug Manufacturers' Association is so vitally interested; and

Whereas, It seems unwise, improper, and unjust to transfer the enforcement of said Act from the Department of the Treasury to the Department of Justice and thus compel the members of this Association to deal with Government officials whose training and business is to detect criminals and who are, therefore, not equipped with the knowledge and experience to properly administer the permissive features of the National Prohibition Act; now therefore be it

RESOLVED, By the American Drug Manufacturers' Association in annual convention assembled that it desires to record its opposition to the proposal to transfer the enforcement of the National Prohibition Act from the Department of the Treasury to the Department of Justice; and, be it further

RESOLVED, That the Committee on Legislation of this Association be and it is hereby authorized, empowered, and directed to take such steps as in its discretion seem proper to oppose any legislation which may be introduced in the Congress of the United States to accomplish such transfer; and, be it further

RESOLVED, That the Executive Vice-President and Secretary of the Association be and he is hereby authorized, empowered, and directed to transmit a copy of this Resolution, together with a list of the members of this Association, to the President of the United States.

Article II of the constitution was amended to read as follows, the change being the additional italized words:

"Any person, partnership, or corporation in the United States of America or any of its territories or insular possessions, primarily engaged in the manufacture of pharmaceuticals, chemicals, biological, or allied products for the cure, alleviation, mitigation, or prevention of disease, may, on recommendation of the Committee on Membership *and approval by the Executive Committee*, and election by the Association, become an active member of this Association by subscribing to the Constitution and By-Laws and the payment of such part of the annual dues, in accordance with following schedule, as shall cover pro rata that portion of the fiscal year during which he is actually a member; provided, however, that no manufacturer now or hereafter operating under a wholesale liquor permit permitting such manufacturer to buy and sell intoxicating liquors as defined in the National Prohibition Act shall be eligible to membership in the Association."

Subdivisions A, C, and D, of Article IV of the Constitution entitled "Officers and Executive Committee," were amended as follows:

"(A) Officers—The officers of the Association shall be a President, a First Vice-President, a Second Vice-President, a Third Vice-President, an Executive Vice-President and Secretary, and a Treasurer, who shall, with the exception of the Secretary, be elected at the regular annual meeting of the Association and hold office until the next regular annual meeting, or until their successors are elected.

"(C) Vice-Presidents—In the absence of the President, the First Vice-President, or in his absence, the Second Vice-President, or in his absence, the Third Vice-President, shall fulfill the duties of the President.

"(D) Executive Vice-President and Secretary—The Executive and Secretary shall be elected and his compensation fixed by the Executive Committee. He shall be responsible to and under the direct control and supervision of the Executive Committee.

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W. M. Sommer, for many years direct representative in the East for the U. S. Bottlers Machinery Co., of Chicago, has established his own office at 71 Murray St., New York. He will specialize in Industrial Engineering and will represent manufacturers of the highest grade bottling and packaging machinery and equipment.

## Trade-Mark Claims Are Limited

The Supreme Court of the United States decided in Griggs-Cooper vs. U. S. Printing and Lithographing Co. Case that registration of a trade mark does not extend into states where business is not done under the mark. Manufacturers catering to the drug trade were thereby dealt a severe blow.

The opinion was as follows:

"This is a suit brought by the respondent, a corporation of Minnesota, against the petitioner, a corporation of Ohio, alleging that the plaintiff has a trade mark 'Home Brand', registered in the Patent Office for various grocers' goods, which it sells at wholesale in certain named states of the Northwest; and that the defendant is printing and selling labels for similar grocers' goods, containing the word 'Home', which labels are used by the purchasers in states other than those in which the plaintiff has established a market. No interference with interstate or foreign commerce is alleged.

"The bill seeks an injunction against printing and selling such labels for any groceries that the plaintiff sells. The trial court found the facts to be as above stated, and the Supreme Court held that the 'purpose and effect of the (Trade Mark Act of 1905) was to project the trade mark rights of the registrant and owner thereof into all the states even in advance of the establishment of trade therein, and to afford full protection to such registrant and owner.' It affirmed a judgment for the plaintiff giving the relief prayed and a writ of certiorari was granted by this court.

"In the Trade Mark Cases, 100 U. S. 82, it was held upon full consideration by a unanimous Court that the earlier acts attempting to give these unlimited rights were beyond the power of Congress.

"Soon after that decision, an Act of March 3, 1881, gave remedies for the wrongful use of a registered trade mark in foreign commerce or commerce with Indian tribes. It was said that obviously the Act was passed in view of the above mentioned case, that only the trade mark used in such commerce was admitted to registry, and that the registered mark could only be infringed when used in that commerce. Warren v. Searle & Herth Co., and the constitutionality of the Act even when so limited was left open.

"The Act of 1905 goes a little farther and gives remedies against reproduction, etc., of the registered trade mark 'in commerce among the several states' as well as in commerce with foreign nations, etc. A remedy for such infringement was given in Thaddeus Davids v. Davids Manufacturing Co.

"But neither authority nor the plain words of the act allow a remedy upon it for infringing a trade mark registered under it, within the limits of a state and not affecting the commerce named. More obviously, still, it does not enlarge common law rights within a state where the mark has not been used. General Baking Co. v. Gorman, 3F (2d) 891, 894.

"Some attempt was made to support the decision upon other grounds, but we do not think them presented by the record, and they are not mentioned by the Ohio court. Judgment reversed."

The United States Patent Offices declines to interpret the Supreme Court decision and are apparently awaiting a future test case with regard to future trade mark matters.

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## "Masque" Denied as Trade Mark

Application by the Beauty Research Laboratories, Inc., of the word "Masque," with certain of the letters written in a distinctive manner, as a trade mark for cosmetics, was denied upon a finding that the word constitutes a portion of trade marks owned by others, in consequence of which confusion would result, and that the term is descriptive since the purchasing public when pronouncing it would merely regard it as the common word "Mask."

---

Schwarz Laboratories announce the removal of their offices to 202 E. 44th St., New York.

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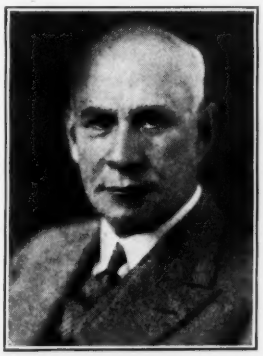
# Proprietary Association Discusses Drug Control at Annual Meeting

The Proprietary Association broke all records for attendance at its annual meeting held May 7 and 8 at Hotel Commodore, New York. As usual, Frank Blair was elected president. Other officers were elected asfollows: Vice-presidents, E. K. Hyde, Mentholatum Co.; J. H. Howe, Nature's Remedy Co.; Secretary-Treasurer, Charles G. Tyrrell, Syracuse Medicine Co.; Members of executive committee to fill expired terms, R. R. Land, George H. Miller, H. Smith Richardson.

The opening session was opened with the president's address in which Mr. Blair reviewed the association's activities during the year.

Delegates of the various associations were received as follows: N. W. D. A., Wm. Schieffelin, Jr.; A. N. T. A., John Handy; A. D. M. A., S. B. Penick, Jr.; P. A. of Canada, Leo Ryan; N. A. R. D., Thomas Potts; F. W. D. A., J. J. Dreyer.

Dr. J. J. Durrett, chief of drug control of the Food, Drug & Insecticide Administration was guest speaker of the first day. Dr. Durrett told of the lines along which the admininstration is proceeding with particular reference to the administration's activities during the recent influenza epidemic. After the close of Dr. Durrett's talk the floor was thrown open for questions. As usual the doctor readily answered all questions and gave his opinion of just what constitutes the phrase "modern medical opinion."



**Frank Blair**
**Reelected President**

E. F. Kemp, general representative of the association, read his report on the second day. Mr. Kemp dwelt at some length on the activities of the Food, Drug & Insecticide Administration.

Said Mr. Kemp: "I have no fault to find—except in the matter of multiple seizures—with the attitude of the gentlemen charged with the enforcement of the Food & Drugs Law. They have a great responsibility and naturally, a viewpoint. I do not believe any fault can be found with them when their viewpoint is considered. They are sorely tried, patient and long-suffering, and with a very real desire to help manufacturers meet their problems."

But with relation to the statement of the administration "Information on Drugs," Mr. Kemp said:

"Literally followed, it would take off of every label practically every statement of the purpose, or intent of the article labeled."

"Were I to make a recommendation," said Mr. Kemp, "it would be that the whole situation be laid before the Department of Agriculture for a restatement, or a re-shaping of policies —not in any way such as would tear down or break up the enforcement of the Food & Drugs Act—but to build up that enforcement along more rational lines. In this we should not proceed alone, in company with other drug trade associations as badly, or worse, harrassed than we are."

E. L. Green, Better Business Bureau, addressed the meeting and asked that the rumor to the effect that the A. M. A. controlled the actions of the bureau be discredited. Mr. Green stated that the Bureau is interested in investigating such preparations as are advertised to correct body deformities, hair restorers, preparations based on sex appeal, lotions promising to change one's appearance,

Thomas W. Delehanty, Assistant Chief, Chemical Division, Bureau of Foreign & Domestic Commerce of Department of Commerce, addressed the meeting on export markets for proprietary products. Mr. Delehanty referred back to a statement of the bureau made in 1925 and calling the attention to drug manufacturers that was about $3,000,000 worth of export business in drug products that could be had if manufacturers would go after it. He stated that business has been absorbed, not by American Drug manufacturers, but by Germany and France. Germany took approximately $20,000,000 of the business, and France took the remaining $10,000,000.

The foreign Trade Section instituted at the last meeting, met on the first day of this year's meeting and discussed South American trade. Officers of the section were elected: Chairman, E. K. Hyde; Vice-chairman, J. H. Mitchell, Henry K. Wampole & Co.; Secretary, E. N. Kemp.

The Scientific Section also instituted at last year's meeting, met this year at the Chemists' Club on the evening of May 7, with an attendance of 36 members. Officers elected are: Chairman Philip I. Heuisler, Emerson Drug Co.; Vice-chairman, Dr. E. C. Merrell, United Drug Co.; Second Vice-chairman, Dr. Charles E. Caspari, Lambert Pharmacal Co.; Secretary E. F. Kemp.

### General Counsel's Report

The report of Harry B. Thompson, general counsel of the association concluded the meeting. Mr. Thompson dwelt on the subject of the Food & Drugs Act. Said Mr. Thompson:

"With respect to that branch of the proprietary industry that manufactures cosmetics, dangerous legislation is threatened. "The cosmetic industry has become very large. Because of its size it furnishes a shining mark. Its greatness invites attack. No public demand has been shown. No dangers developed. No injuries have been disclosed. There does not appear to be the slightest excuse for the introduction of legislation affecting this branch of industry."

After reviewing the amendments to the Food & Drugs Act as well as the decisions that have clarified the law, Mr. Thompson spoke of the regulatory phase of the act:

"The statute provides that rules and regulations shall be issued by the secretaries of Agriculture, Treasury and Commerce. When they are issued in the manner provided for by the statute and are within the field provided for by the act, such rules and regulations have the force and effect of law. They must be within the scope of the act.

"In addition to the formal regulations issued by the three secretaries, which, if within the scope of the statute, have the force and effect of law, the administration issues from time to time, regulatory announcements and administrative constructions indicating its view of the statute and its policy of enforcement.

"In conformity with this practice, the administration has, among other things, issued a pamphlet entitled "Information on Drugs."

"It is not a formal statement by the three secretaries. Insofar as it correctly interprets the statute, its directions should be followed.

"Because of its informal character, and because, in my opinion, it extends somewhat beyond the purview of the statute, it

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must be considered as merely declaring the opinions of the administration.

"It is necessary, therefore, to analyze this publication in order to determine how far it is a safe and proper guide to the manufacturer.

"Unquestionably it refers to some matter not within its field. To a degree it rewrites the statute. It declares a new law of evidence in that it shifts the burden of proof, excludes certain evidence as improper, and attempts to prescribe what is the best evidence.

"It declares the concensus of present-day medical opinion to be the only evidence upon which the truth of label claims may be determined. It excludes all other evidence which might be properly admitted in court."

## "Marmola" to "Cease and Desist"

The Federal Trade Commission announces issuance of an order to the Raladam Co., of Detroit, prohibiting misrepresentations of the company's product. The Raladam Co. sells and distributes an alleged remedy for treatment of obesity known as "Marmola Prescription Tablets."

The Commission ordered the company to cease and desist from representing: That "Marmola" is a scientific and accurate method for treating obesity; That the formula from which "Marmola" is made is a scientific formula; That "Marmola" can be taken without the advice and direction of competent medical authority as a safe and harmless remedy in the treatment of obesity, etc.

It was also found that use of "Marmola" as directed, that is, four tablets a day for a period of sixty to ninety days, would be likely to create in the user thereof what is known in medical science as the "laxative habit."

## Frank R. Rohrman

Frank Randall Rohrman, president and general manager of the Philadelphia Wholesale Drug Co., died May 6 while on his way from his offices to the Manufacturers' Club, of which he was a member. Death was due to heart failure. Mr. Rohrman was in his 67th year.

Mr. Rohrman was a leading member of the Federal Wholesale Druggists' Association, and took an active part in helping to develop co-operative jobbing houses other than his own.

Mr. Rohrman was an outspoken advocate of co-operative drug jobbing, and the development and success of the company of which he so long served as head is largely attributable to his initiative and managerial ability. The company just recently moved into its new building at Tenth and Spring Garden sts., a structure which will long furnish tangible evidence of the success and faith of Mr. Rohrman and his associates in co-operative jobbing.

Funeral services were held May 8, burial being in West Laurel Hill Cemetery, Philadelphia.

## David M. Cowan

David M. Cowan, chairman of the board of the Plimpton-Cowan Co., Buffalo, died May 5 in his 74th year.

Mr. Cowan was born in Buffalo and at the age of 18 years joined the staff of the drug house of Powell & Plimpton as bookkeeper. In 1890, after the death of Mr. Powell, Mr. Cowan and his brother formed a partnership with Mr. Plimpton. This business was incorporated under the present name in 1916, Mr. Cowan being president of the concern until 1926, when he became chairman of the board.

Mr. Cowan left a widow, Mrs. Marian W. Cowan, and two sons, Harold D. and Howard Cowan, who are directors of the Plimpton-Cowan Co., two brothers, George A. and Burton B. Cowan, and a sister, Mrs. Joseph E. Rodgers.

Funeral services were held at the home, May 8. Interment was in Forest Lawn Cemetery.

# Chicago Happenings

The Chicago Perfumery, Soap and Extract Association held its Annual Spring Dinner Dance on April 18th in the Banquet Room at the Edgewater Beach Hotel. Harold E. Lancaster, who had charge of the affair, succeeded in drawing a larger crowd than has been seen at any similar occasion during the past five years. One hundred and ninety-six were seated at the twenty reserved tables, which were designated as follows: Franco American Hygienic Co.; Walter H. Jelly & Co.; Fritzsche Brothers, Inc.; Victor Chemical Works; Givaudan-Delawanna, Inc.; Norda Inc.; Harry Bartold; Frank Z. Woods; Harold E. Lancaster; A. J. Dedrick; Armstrong Cork Co.; Primrose Laboratories; Adam Bialecke; Owens-Illinois Glass Co.; American Commercial Alcohol Co.; Carr-Lowery Glass Co.; Riviera Products Co.; Mallinckrodt Chemical Works; Scovill Manufacturing Co.; and Harriet Hubbard Ayer, Inc. Mr. Lancaster's assistants on the Entertainment Committee were A. J. Dedrick, of Edward T. Beiser Co., J. W. Bicks, of Carr-Lowery Glass Co., George Woods, of Frank Z. Woods and Frank T. Robinson, of Monsanto Chemical Works.

The Chicago Drug and Chemical Association had for its speaker at the regular monthly luncheon on April 25th, the Hon. Frank J. Loesch, who has been a valiant figure in recent combats against Chicago crime. The attendance was sixty-five and O. N. Davis, the new President, formally took over his official duties. Announcement of the committee appointments for 1929 is promised for next month.

Roy Huddleston, formerly associated with the Beaver-Remmers-Graham Co., is now with the American Products Co., of Cincinnati, Ohio.

H. J. Boulden, of Andrew Jergens Co., of Cincinnati, plans to leave on the first of June for a three months' trip to Europe, accompanied by Mrs. Boulden.

Colgate-Palmolive-Peet Co., is now actively engaged in establishing headquarters in the new North Side Building. Interior finishing is rapidly nearing completion and according to a recent report more than half of the office space has now been rented.

The Unity Stores Corp., a new organization established at 228 N. La Salle St., Chicago, will operate with the independent stores throughout the country for the distribution of soaps and allied products. H. C. Barry has been placed in charge as general manager.

The Spencer Perfume Co., has now completed the removal of plant and offices from Madison and Ewing Ave., to 1001 S. Main St., South Bend, Ind.

E. M. Wallace, of the Wallace Laboratories, of Chicago, returned early in April from a trip through the New England States.

Charles S. Curtis, of the Wilson Laboratories, is reported recovering at the Michael Reese Hospital from poisoning which set in after his recent operation.

David A. Bennett, of Albert Verley, Inc., underwent an operation at St. Luke's Hospital early in May.

The Chicago Office of Hazel Atlas Glass Co. was visited early in May by S. B. Bowman, District Superintendent of Plants in Ohio and Oklahoma, and F. C. Flint, Chief Chemist at Washington, Penn.

Superior Perfume Co., is now established in new quarters at 900 N. Franklin st.

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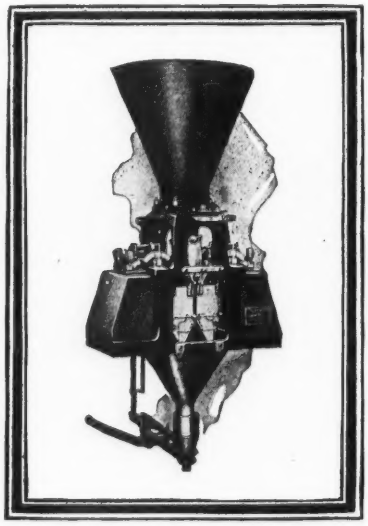

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## A. P. M. A. Program

The Twenty-Second Annual Meeting of the American Pharmaceutical Manufacturer's Association, to be held at The Chamberlin-Vanderbilt Hotel, Old Point Comfort, Virginia, June 3rd to 6th, 1929, will get under way on June 3rd at 10.00 A. M. with the roll call of active and associate membership; report of Committee on Attendance, Bern B. Grubb, Chairman, Lafayette Pharmacal Co.; Report of Memorial Committee, B. L. Maltbie, Chairman, Maltbie Chemical Co.; Report of Membership Committee, Dr. C. H. Searle, Chairman, G. D. Searle & Co.; Report of Committee on Annual Meeting, H. B. Johnson, Chairman, Zemmer Co.; Report of Associate Membership Committee, C. S. Curtis, Chairman, Wilson Laboratories; Report of Committee on Research Awards, Dr. A. S. Burdick, Chairman, Abbott Laboratories; Report of Secretary, J. G. Searle, G. D. Searle & Co.; Report of Treasurer, C N. Angst, Pitman-Moore Co.; Appointment of Committees; Address of President, R. Lincoln McNeil, Robert McNeil; adjournment at 12.00 M.; 2.00 P. M, Qualifying Round, Men's Golf Tournament; 8:30 P. M. Address, "Chemistry in General," Dr. Sidney S. Negus, Professor of Chemistry, Medical College of Virginia.

Tuesday session, June 4th, 1929, Theme: Greater Efficiency and Economy in Distribution: 9:30 A. M. Report of Committee on Distribution Problems, F. A. Mallett, Chairman, Standard Chemical Co.; 12:00 M. adjournment; 2:00 P. M. Theme: Legislation: Report of Committee on Trade Names, R. R. Patch, Chairman, E. L. Patch Co.; Report of Prior Rights Board, Ralph R. Patch, Chairman, E. L. Patch Co.; Report of Legislation Committee (including report of Councillor to U. S. Chamber of Commerce) C. D. Smith, Chairman, C. D. Smith Pharmacal Co.; Discussion of Labelling of Medicinal Products Led by Dr. J. J. Durrett, Chief, Drug Control U. S. Food, Drug and Insecticide Administration; 4:00 P. M. Adjournment; 8:30 P. M. Associate Members' Night of Fun and Frolic.

Wednesday session June 5, 1929: Theme: Sales Promotion; 9:30 A. M. Report of committee on business policy, J. H. Foy, chairman, Maltbie Chemical Co.; Report of Committee on sales problems, Dr. H. Sheridan Baketel, Chairman, Reed & Carnrick; 12:00 M. Adjournment; 2:00 P. M. Finals, Men's Golf Tournament; 7:30 P. M. Annual Banquet, addresses by Hon. Walter G. Campbell, Director of Regulatory Work, U. S. Department of Agriculture, Dr. Eugene L. Fisk, Medical Director, Life Extension Institute, Dr. W. C. Woodward, Director of Bureau of Legal Medicine and Legislation, American Medical Association.

Thursday session, June 6, 1929: Theme: Standardization and Laboratory Control: 9:30 A. M. Report of Committee on Standardization of Glass Containers, C. C. Doll, Chairman, Zemmer Co.; Report of Contact Committee (Including Research Board), Dr. C. E. Vanderkleed, Chairman, Robert McNeil; Address, Charles Wesley Dunn, Esq., Association General Counsel; 12:00 M. Adjournment; 2:00 P. M. Executive Session (Active Members Only); 4:00 P. M. Adjournment.

Closing session: 8:30 P. M. Reports of Committees; 9:00 A. M. Farewell Party, Awarding Golf Prizes, and Reception to New Officers.

**Entertainment Program**

Monday, June 3, 1929: Afternoon; Ladies-Putting Contest, Men-Qualifying round-Golf Tournament; Evening: Address, "Chemistry in General," by Dr. Sidney S. Negus, Professor of Chemistry, Medical College of Virginia; with special musical program followed by dancing. Tuesday, June 4, 1929: Morning: (11:00 A. M.) Ladies-Boat trip including luncheon: Evening: Associate Members Night of Fun and Frolic. Wednesday, June 5, 1929; Morning: Ladies: Luncheon at Country Club followed by Bridge Party in afternoon; Afternoon: Men: Finals-Golf Tournament: Evening: Annual Banquet—addresses by Hon. Walter G. Campbell, Director of Regulatory Work, U. S. Department of Agriculture; Dr. W. C. Woodward, Director of Bureau of Legal Medicine and Legislation, American Medical Association; Dr. Eugene L. Fisk, Medical Director, Life Extension Institute.

Thursday, June 6, 1929; Morning and afternoon: Personal trips, if desired, by motor or boat to Norfolk: Evening: Farewell Party, Awarding Golf Prizes, Reception to New Officers.

## Chemical Industries Banquet

The Sixth Chemical Industries Banquet was held in the Hotel Roosevelt, May 9, and was the feature of the Twelfth Exposition of Chemical Industries in the Grand Central Palace, New York, May 6 to 11. The speaker of the evening was William J. Donovan, former assistant to the Attorney General of the United States and his chosen subject was the relation of government to industry. Ralph E. Dorland, Dow Chemical Co., president of the association, presided and introduced Charles C. Concannon, chief, Chemical Division, Bureau of Foreign and Domestic Commerce, who in turn introduced Col. Donovan.

**William J. Donovan**

Among the organizations which co-operated with the Salesmen's Association in making this banquet a great success were the American Association of Textile Chemists and Colorists, American Institute of Chemists, American Leather Chemists' Association, Chemical Warfare Association, Chemists' Club, Compressed Gas Manufacturers' Association, Manufacturing Chemists' Association, Societe de Chemie Industrielle, Society of Chemical Industry, Snythetic Organic Chemical Manufacturers' Association, Technical Association of the Pulp and Paper Industry and the Chlorine Institute.

## "Iodine" in Tooth Paste "Ads" to Cease

In a ruling by the Federal Trade Commission, Washington, respondent, a manufacturer of tooth paste entered into the following stipulation of facts and agreements to cease and desist forever from the alleged unfair methods of competition as set forth therein.

The tooth paste manufactured by respondent is prepared by compounding various ingredients, and includes an amount of iodine and chalk, which, in the process of manufacturing the tooth paste, combine to form an iodide which does not have the antiseptic or germicidal qualities of free iodine.

Respondent has caused the product to be branded and described as "The Iodine Tooth Paste," "Iodine Purifies the mouth as sunshine purifies the air," "Its Iodine proteets you," etc.

## Disinfectant Meeting, June 10

The Summer convention of the Insecticide and Disinfectant Manufacturers' Association will be held June 10 to 12, at the Edgewater Beach Hotel, Chicago.

The program for the convention is in charge of E. B. Loveland, of Stanco, Inc., 2 Park ave., New York. An unusually interesting program is being arranged and an exceptionally large attendance is expected.

The business sessions will, as heretofore, be held mornings and afternoons of the three days the convention is in session.

The Norwich Pharmacal Co., Norwich, N. Y., has appointed the J. Walter Thompson Co., Inc., to direct the advertising of Pepto-Bismol, a liquid anti-acid.

Lentheric, Inc., New York and Paris have placed their advertising account with the Frank Presbrey Co., Inc., New York.

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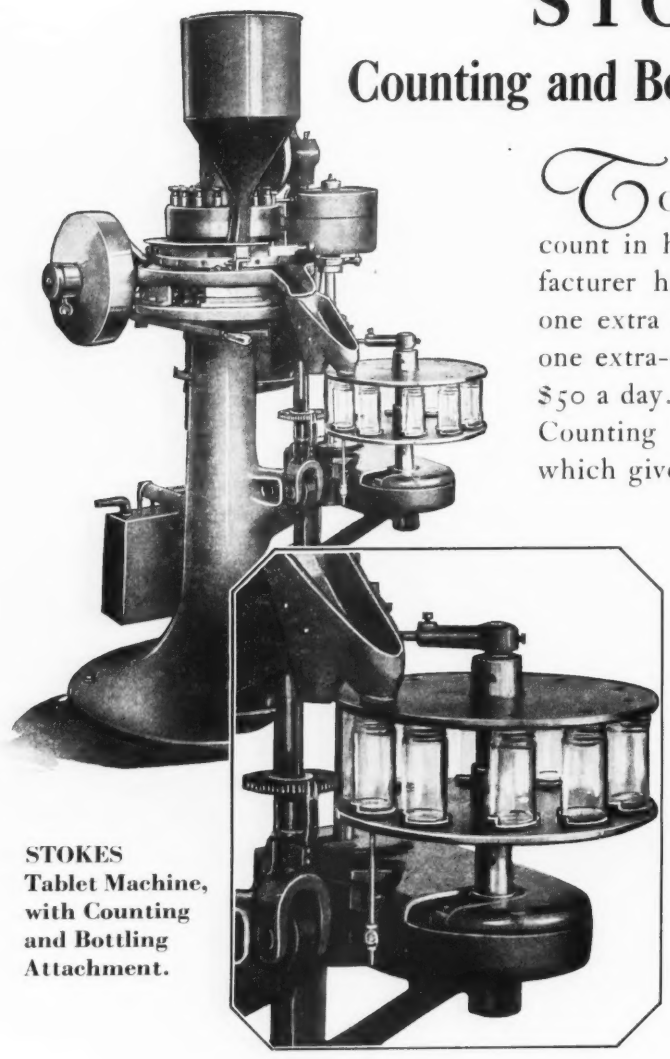

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Address .....

## Stearns Officials Inspect Sydney Branch

Earl Warner, Vice President and Treasurer of Frederick Stearns and Co., and J. Lomax, British Manager of this well known Detroit manufacturing pharmaceutical house are en route to Australia on their annual inspection of the Company's Sydney branch.

**At Left, Earl Warner, Vice-president and Treasurer, Frederick Stearns & Co. At Right, J. Lomax, British Manager.**

The Sydney branch operates a complete manufacturing unit from which a full line of Stearns products are distributed through the Antipodes and the Orient. A new laboratory was constructed last year to take care of the increased business in that part of the world.

Mr. Lomax and Mr. Warner are expected back in the United States within three months.

## Alcohol in the Circus Trade

Moe, the circus elephant, suffering from pneumonia, is holding his own. Five gallons of alcohol were forcibly administered. Prohibition Administrator E. C. Yellowley, Chicago, signed a permit for the alcohol at the urgent plea of circus officials, and Rossville supplied it.

The step was taken after Dr. William Muldoon, chief veterinarian of the circus, declared that only the liquor could save the animal's life. Moe was last seen guzzling from a bucket with apparent appetite, while the other elephants trumpeted as the aroma of alcohol was wafted in their direction.

## N. Y. Drug Trade Tennis Club

Announcement has been made of the formation of a tennis playing club open to all members of the drug trade. Thursday afternoons has been set aside as a playing day. All interested are requested to get in touch with H. E. Martin, Beekman 0606, or R. Van S. Hillier, John 2715.

Courts now used are opposite Ebberts Field, Brooklyn, about 20 minutes from downtown Manhattan. Leaving offices at 3 P. M. on Thursdays allows ample playing time.

## A Merger of 4 Non-Competing Houses?

A merger including one of the most reputable and one of the oldest pharmaceutical manufacturers, one of the most reputable and oldest manufacturers of hospital supplies, bandages, etc., one of the most reputable and oldest manufacturers of biologicals, and one of the most reputable and oldest manufacturers of fine medicinal chemicals has been attempted by a banking institution.

While there are no indications as to whether all, or in fact any of the companies involved are in a receptive mood to the proposal, there have been various rumors back and forth that the deal is through and is not through. In fact, one of the high officials of one of the companies involved asked another member of his company if he had received his new stock as yet, stating definitely that the deal had been closed.

But there it stands, and nothing definite has been stated.

Members of the companies involved see the economic justification behind such a merger. All the companies manufacturer non-competing lines, and the entire group gives a most complete line of the medicinal products required by the drug trade.

## Bay Co. Buys Two Companies

Bay Co., Bridgeport, Conn., manufacturers of surgical dressings, have absorbed two allied concerns, Hygienic Fiber Co., Versailles, Conn., and Comfort Powder Co., Boston.

Hygienic Fiber Co. was established in 1905 and manufactures a cotton sanitary napkin, as well as a complete line of surgical dressings. Hygenic Fiber Co. brings to Bay Co. a modern cotton gauze bleachery as well as an increased volume of business.

Comfort Powder Co. was organized in 1888 by Dr. Sykes of Hartford, and manufactures Sykes Comfort Powder.

## Whelan Opens Springfield Store

Whelan Drug Co., has opened a store at Fifth and Monroe sts. Springfield, Ill., with W. G. Hahn associated with local drug stores 15 years as manager. The store section has been entirely remodeled and complete new stock installed.

## A Drug Survey Coming

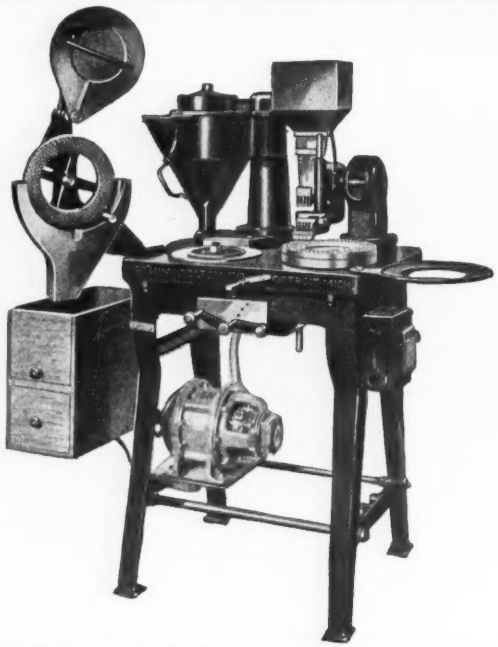
A survey of the drug trade of St. Louis is under consideration by the Department of Commerce following requests from various factors in the St. Louis drug trade. H. C. Dunn, Department of Commerce, in addressing the annual meeting of the A. D. M. A. asked the members whether or not they were in favor of a survey and whether they thought that St. Louis was the proper city in which the survey should be conducted. The opinion of the members was most favorable to St. Louis.

The survey will include all branches of the trade—manufacturers, wholesalers and retailers. It will be similar to the recent survey of the grocery trade made in Louisville.

Mr. Dunn warns that the survey will not take place immediately since the department must use the same crew that conducted the Louisville grocery survey. He states that the department has only one crew capable of conducting such a survey.

L. M. Albright, advertising manager of the Illinois Glass Co., (recently merged with the Owens Bottle Co.) has tendered his resignation effective June 1, although he was offered the same position in the newly formed Owens-Illinois Glass Co. Mr. Albright declined the offer so that he might enter business for himself in Baltimore.

Industrial Chemical Sales Co., Inc. announce the removal of their offices to New York Central Building, 230 Park Ave., New York.



This Capsule Filler is leased at a very low rental to users of Colton capsules. It is extremely simple to operate, fills with greater accuracy than other methods and is the fastest capsule filler made.

Those who have not sufficient production to warrant the use of these machines may send their material to to us for filling.

**One girl can fill 75,000 to 100,000 Capsules each day with this CAPSULE FILLER!**

If you fill empty Gelatine Capsules, you need Colton Capsules, and a Colton Capsule Filler, to meet your competitors' prices and to put a greater part of your price back in your own pocket.

**Arthur Colton Company**

**2620 East Jefferson Avenue**

**DETROIT, MICHIGAN**

Patented Nov. 27, 1928

**Hy-Speed**

**ELECTRIC MIXING TANKS AND FILTERS**

Are used everywhere because they combine extreme economy with real operating efficiency. The Glass-Lined Mixing Tank illustrated is in great demand because... the motor is above the liquid... the top and bottom of the tank are mixed simultaneously... there is no stuffing-box to leak or obstruct cleaning... it is lined inside and coated outside with acid-resisting glass,.. and the low price makes it a real bargain in any capacity from 1 to 200 gallons.

**INTERNAL PRESSURE FILTER**

The new *"Hy-Speed"* Filter produces a crystal-clear product free from dirt with a minimum of trouble. Can be cleaned in two minutes. *Filtered* liquids can be pumped to any part of plant in same operation. Operates from light circuit.

*Write for our attractive new catalogue: "The Hy-Speed AGE"*

**ALSOP ENGINEERING COMPANY**

*Makers of "Hy-Speed" Mixers, Filters, Bottle Fillers, Pumps, and ALSOP Glass-Lined Tanks.*

47 WEST 63RD STREET NEW YORK CITY

## Advertising Censorship Board

The Federal Trade Commission in a bulletin issued to the press under date of May 8 announces that it has appointed a board of three of the Commission's attorneys to investigate "false and misleading advertising published in newspapers and periodicals." Developments along this line will be awaited with deep interest as possible forshadowing the establishment of a governmental censorship of advertising. The Commission announces that it will proceed under Section 5 of the Federal Trade Commission Act "prohibiting unfair methods of competition." The following is the Commission's bulletin:

"False and misleading advertising published in newspapers and periodicals will be investigated from time to time by a special board of investigation that has just been named by the Federal Trade Commission, the board consisting of three of the Commission's attorneys. All inquiries will be based on Section 5 of the Federal Trade Commission act prohibiting unfair methods of competition.

"In connection with carrying on a survey of published advertising the board will hold preliminary hearings on cases having to do with unfair advertising. An informal examination of newspaper and periodical advertising has been under way for several months so that there are now a number of cases ready for review.

"Hearings before the board will not be public because the commission's rules on publicity do not permit a case to be made public prior to issuance of complaint.

"Members of the board are: Martin A. Morrison, Chairman; James A. Horton, and Eugene L. Culver. They will report all findings directly to the commission."

## Abbott Educates Salesmen

Abbott Laboratories branch and district managers, together with company officials and members of the research staff, held a dinner meeting on Thursday, April 4, in the company's headquarters at North Chicago, Ill. The extent to which modern progressive business institutions conduct and encourage the highest type of research work was exemplified in the discussions.

Dr. Alfred S. Burdick, President of the Abbott Laboratories, spoke of the great importance of well-planned, properly organized research.

He was followed by a number of the men who have had various phases of research on different problems in hand.

Dr. Roger Adams, Professor of Chemistry, University of Illinois, told of the battle against leprosy, the earlier and later uses of chaulmoogra oil in its treatment, the synthesis of this oil, and the more recent developments in clinically testing various forms of this remedy in hundreds of cases in the Philippine Leper Colony.

Dr. Geo. W. Raiziss, Director of The Dermatological Research Laboratories of Phila., reported on advances in Chemotherapeutic Research, particularly in relation to the treatment of syphilis and allied infections.

Dr. E. H. Volwiler, Director of Chemical Research for the Abbott Laboratories, demonstrated the efficiency of the newer products for the visualization of the gall bladder, stomach and other internal organs.

Dr. J. F. Biehn, Director of Clinical Research, described the germicidal potency and general effectiveness of Metaphen and Metaphen 2500.

Mr. Carl Nielsen, Director of Pharmacology, discussed the sources of vitamines and their application in the treatment of various disease conditions, chiefly with reference to Vitamine D as found in Irradiated Ergosterol.

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Joseph H. Acker, Assistant Appraiser assigned to the drug, perfumery and chemical division at the United States Appraiser's Stores, New York, died in the Tarrytown hospital. Mr. Acker had been in the Government service since 1883 and was one of the foremost authorities in the country on dyestuffs, etc.

## $6,000,000 Chain Being Formed

The formation of a $6,000,000 retail drug store chain is being organized under the direction of Harry Cooper, of Cooper & Cooper, New York; W. S. Brand of Sumter, S. C.; E. L. Wingfield of Columbia, who will head the new concern, and W. E. Caughman of Columbia.

When completed the project will be capitalized at $6,000,000, according to the announcement, and control upward of 150 drug stores in North and South Carolina. Most of the latter have already signed contracts.

The capital stock is to be divided into $3,000,000 common, and the same amount of preferred. The preferred stock will be sold to the public, the proceeds of which will be applied to the purchase of the various units and to the organization costs of the new concern.

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Grinders and packers of spices of the United States on May 9th will hold a trade practice conference in New York with the Federal Trade Commission. The main purpose of the meeting will be correction of the practice of "slack filling" containers used to hold these commodities.

The conference will open at 10 A. M. in the Hotel Astor and Edgar A. McCulloch, chairman of the Federal Trade Commission, will preside.

Import value of spices prepared in this country amounts to approximately $17,000,000 annually.

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Dr. J. Uri Lloyd, former president of the American Pharmaceutical Association and a chemist of international repute was recently given a celebration by prominent leaders in the chemical industry upon the occasion of his eightieth birthday. The testimonial took place in the Cincinnati Club, Cincinnati and among others present were Dr. E. G. Eberle, editor of the Journal of the American Pharmaceutical Association, Baltimore; Dr. John M. Withrow, former president of the Cincinnati Board of Education; John Weld Peck, former judge of the United States District Court at Cincinnati; Prof. Edward Kremers, of the University of Wisconsin, and John L. Shuff, of Kentucky.

In accordance with the decree of December 12, 1928, exemption from the formalities of import and export certificates in France has been authorized, for the following products: Allylmorphine, benzylmorphine, codeine, ethylmorphine, papaverine, paramorphine, and supposedol. A customs permit is now sufficient for the importation or exportation of these articles, according to information sent to the Department of Commerce from the office of the commercial attache at Paris.

Du Pont Cellophane Co., Inc., New York, has appointed E. C. Lake assistant director of sales. He has been with the Du Pont Cellophane organization for five years, having been special representative and Eastern district sales manager.

J. C. Jorgensen has been appointed Eastern district sales manager to succeed Mr. Lake. Mr. Jorgensen has been assistant district sales manager.

Industrial Chemical Sales Co., Inc., New York, are issuing a new booklet dealing with the application of Activated Carbons (Nuchar) to the refining of vegetable oils, fats, and greases, etc., also another special leaflet relative to the recovery of dry cleaners' solvent. Copies will be furnished to any one interested.

Magnus, Mabee & Reynard, Inc., New York, has been allowed a drawback from March 7, 1928, on exports of cleaned liquid styrax, U. S. P., produced from imported liquid styrax.

# Bring your Packaging Problems to Us

We have served the package goods industry for the past 26 years. Some of the products wrapped on our machines are shown here. Why not make use of this wide experience? Let us look at your package to see if we can improve it, or lower your wrapping costs. Get in touch with our nearest office.

**PACKAGE MACHINERY COMPANY, Springfield, Massachusetts**

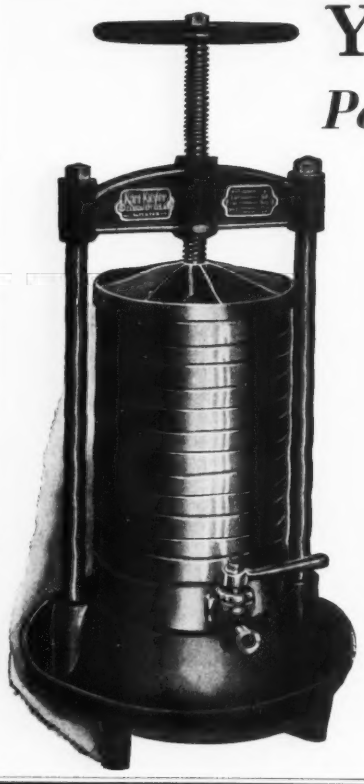
New York: 30 Church Street  Chicago: 111 W. Washington Street

London: Baker Perkins, Ltd., Willesden Junction, N. W. 10

## PACKAGE MACHINERY COMPANY

*Over 150 Million Packages per day are wrapped on our Machines*





# Your Product--

## *Perfectly clean, clear, sparkling!*

All cloud and sediment removed,---with a polish that is only possible to attain in most products with the pure, snow-white cotton filtermasse that is used in the

### Kiefer Multiple Pulp Filter

*For many years this filter has set the standard of brilliancy.* There are over 3000 in use filtering medicines, tonics, perfumes, extracts, etc.

Twelve plates---each a complete filter in itself---any number may be used at a time---large or small quantities may be conveniently filtered---it is flexible to your daily needs.

**THE KARL KIEFER MACHINE COMPANY**

**Cincinnati, Ohio**

# The Financial Markets

## Lambert to Show 30% Gain

Lambert Co. earnings for the quarter ended March 31 to be issued shortly are expected to show a gain of roughly 30% or nearly $1.00 a share on the 698,996 shares over the $2.45 a share earned in the first quarter of 1928, according to the "Wall Street Journal." Net income for the quarter will probably be close to $2,250,000, or about $3.30 a share against $1,182,292 in the first quarter last year when 481,250 shares of Lambert Co. stock were outstanding. At that time Lambert Co. owned 64.58% of Lambert Pharmacal Co. stock. Its holdings in the operating company now amount to 95.8% of the stock. Proportion of income of the operating company applicable to the minority stock holdings will be made up by Lambert Co. from income received from Lambert & Feasley, the wholly owned advertising agency.

While there has been some let-down in the gain in business over the comparable periods of 1928 since early in the year, volume of business done during the first quarter was substantially ahead of the first quarter of 1928. It is understood that January business was practically double that of January, 1928, and February's gain was approximately 80% of that month last year. The March gain in business was smaller than in the two preceding months, when sale of Listerine was stimulated by the influenza epidemic

Although stockholders have approved the increase in authorized stock to 2,500,000 shares from 1,000,000 shares it is not expected that any action will be taken with respect to a split-up of the stock at the present time. While there is a possibility that Lambert Co. may eventually acquire an interest in some additional drug companies, such developments do not lie in the immediate future.

Lambert Co., reports for quarter ended March 31, 1929, consolidated net profit of $2,238,298 after charges and taxes, based on 95.8% on present ownership of stock of the Lambert Pharmacal Co. This is equivalent to $3.20 a share on 698,996 no-par shares of capital stock now outstanding. On a similar basis, consolidated net profit for first quarter of 1928 would have been $1,709,344, equal to $2.44 a share on the number of shares now outstanding.

## Drug Stock Index Steady

The index of the Standard Statistics Co. of New York, for prices of common stocks of drug, cosmetics, and perfume manufacturers still holds far above its similar index for 339 stocks of all industries, although the drug index remains near its low point for 1929. The following tabulation compares the drug indexes in recent weeks with those for all industries:

| | *Drugs* | 339 *Industrials* |
|---|---|---|
| 1928 High | 264 2 | 186 4 |
| Low | 166 8 | 132 5 |
| 1929 High | 260 6 | 198 8 |
| Low | 233 2 | 190 0 |
| April 11 | 234 0 | 191 0 |
| 18 | 233 2 | 194 6 |
| 25 | 235 9 | 194 9 |
| May 2 | 234 7 | 198 8 |

United Cosmetic Shops will offer an issue of Class A common stock, without par value through E. Stuart Winfield & Co., Inc. at $18 a share. The company, in addition to operating a chain of its own stores, distributes its products through department stores, drug store systems and other establishments.

## Vadsco Sales Earnings

Vadsco Sales Corp. reports for quarter ended March 31, 1929, profit of $440,375 after charges but before federal taxes.

Consolidated statement as of January 2, 1929, shows total assets of $18,228,423, current assets of $6,858,231, current liabilities $2,052,209 and profit and loss surplus of $531,359. Stock to be outstanding when exchange of all stock of predecessor companies is made amounts to $7,657,800 (par $100) of preferred and 1,021,573 no-par shares of common.

Net profit of V. Vivaudou, Inc., for year ended December 31, 1928, was $355,703 after depreciation, federal taxes, etc., equivalent after 7% preferred dividends to 40 cents a share on 381,753 no-par shares of common stock, comparing with $1,012,191, or $2.50 a share on 372,266 common shares in 1927. The name of this company has been changed this year to Vadsco Sales Corp., but operations for 1928 include only the business of V. Vivaudou, Inc., and its old subsidiaries. Vadsco Sales Corp. is a consolidation of V. Vivaudou, Inc., American Druggists Syndicate and Kny-Scheerer Corp.

## Burroughs Wellcome Doubles Capital

Burroughs Wellcome & Co. have increased the capitalization of their New York corporation from $2,000,000 to $4,000,000. This is merely an internal readjustment of the capital structure of the company due to the fact that the company is continually increasing its capitalization as it increases its holdings. Recently the company has increased its holdings at Tuckahoe, N. Y. very materially and the latest capital increase is said to be largely due to this fact. There has been no offering of stock to the public nor is any offering contemplated.

## Liggett Buys Wolff-Wilson Chain

Liggett Co. have acquired by merger the Wolff-Wilson Drug Co., the largest local chain of drug stores in St. Louis. The deal is said to represent $1,500,000. It is understood the St. Louis stores will be operated as heretofore and probably under the same name. There are eight of the St. Louis stores. The business was established by Edward W. Wolff and George H. Wilson.

## McCormick & Co. Doubles Dividend

McCormick & Co., Inc., Baltimore, at its annual meeting in March declared a dividend of $4.00 per share on all outstanding common stock, payable April 1, 1929. This compares with $2.00 per share on April 1, 1927 and $3.00 per share on April 1, 1928.

The same officers and directors were re-elected for the ensuing year.

## Zonite Issues Quarterly Report

Zonite Products Corp. reports for quarter ended March 31, 1929 net profit of $89,600 after taxes and charges, equivalent to 51 cents a share earned on 176,000 shares of no-par stock. This is first quarterly report issued.

Leonard Kennedy was elected a director to fill a vacancy.

Chesbrough Manufacturing Co. elects Joseph A. Ebert a director at annual meeting of stockholders to succeed William A. Cammann. Other directors were re-elected.

Pro-phy-lac-tic Brush Co. declared the regular quarterly dividend of $1.50 on the preferred stock, payable June 15 to stockholders of record May 31.

QUAKER
BRAND

*Alcohol*

**Their Quality Never Varies**

!

*The recent affiliation of the Pennsylvania Sugar Company with The Franco-American Chemical Works, Inc., of Carlstadt, N. J., enables us to offer a complete line of industrial and pharmaceutical chemicals, in addition to the well-known Quaker Brand Industrial Alcohol.*

**Pennsylvania Sugar Company**
**Franco-American Chemical Works, Inc.**

REPRESENTED BY

**A.K.Hamilton**

**95 Wall Street** **New York, N. Y.**

***Sales representatives and warehouse stocks in principal cities***

## Coty Sales Gain

Sales of Coty, Inc., during the first quarter of 1929 ran 11.9% ahead of the same period of 1928, and March sales showed a gain of 9.29% over March, 1928. While the actual sales figures are not available, this gain will probably result in a similar gain in net income. An 11.9% increase in net income over the $848,298 earned in the first quarter of 1928 would result in net income for the first three months of 1929 of approximately $950,000, exceeding all previous records for the first quarter for Coty.

On the 1,330,713 shares outstanding, this is equal to about 71 cents a share after the four-for-one split-up of last fall and the payment of the first quarterly instalment of the stock dividend of 6% for this year declared last January. On the same share basis, earnings in the first quarter of 1928 were equal to 64c a share. These earnings do not include any dividends which might be received from subsidiaries of Coty.

## New Philadelphia Chain

Announcement has been made of the formation of the Arrow Holding Corp. under the laws of Delaware to buy control of thirty-six drug stores in Philadelphia. The gross business of these stores is approximately $3,000,000, with a net income of more than $350,000 after depreciation, taxes and other deductions.

George C. Barber, formerly chairman of the Continental Baking Corp. will head the company. With him will be associated J. B. Burns, Jr. as vice-president and secretary and David Eisman as vice-president. The company will also buy and operate chains in other fields. It is expected that public offering of their securities will be made shortly.

## Four Alcohol Companies Merge

The General Industrial Alcohol Corp., a Delaware corporation, has been formed by the consolidation of the business and assets of the General Industrial Alcohol Co., Inc., Marrero, La., the National Industrial Alcohol Co., Inc., New Orleans, the Greendale Co., Lawrenceburg, Ind., and the Michigan Chemical Co., Bay City, Mich. Walter J. Trautman is to be president of the new corporation. Government permits totaling 5,000,000 gallons of alcohol annually are held by the new company.

The new corporation will also acquire ownership of the Molasses Distributors' Corporation. The new company will be capitalized at $2,500,000 of 6½ per cent. convertible debentures, due in 1944, and 285,000 shares of no par value common stock, of which 115,000 shares will be outstanding.

## Heyden Report Correction

Heyden Chemical Corp. report for 1928 net income of $325,107 after interest, Federal taxes and other charges. This is equal to $104.87 a share on 3,100 shares of 7 per cent. cumulative preferred stock of $100 par value. It was incorrectly stated in our issue of last month that there are accumulated unpaid dividends on the 7 per cent. cumulative preferred stock of the company. Officials of the company state that all unpaid dividends on the preferred stock had been paid up before January 1, 1929.

A dividend of 50c per share has also been declared on the common stock, payable May 1.

Approximately 800 independent retail druggists of Minnesota and other states in the Northwest have organized a chain group to combine their buying and selling efforts, under the leadership of the Northwestern Drug Co. of Minneapolis. An advertising campaign is to be conducted, emphasizing low prices and the local ownership feature of chains, which will be known as the Hy-Test group. The combined purchasing power of the stores is about $3,500,000 annually.

## McK & R. Take Over 24 More Units

McKesson & Robbins have added the following wholesale drug houses to their system of distribution and service and are now affiliated with and operating units of McKesson & Robbins, Inc., (Maryland):

| | | |
|---|---|---|
| Blanding & Blanding, Inc. | Providence | R. I. |
| H. & J. Brewer Co. | Springfield | Mass. |
| Bronx Drug Company | New York | N. Y. |
| J. W. Crowdus Drug Co. | Dallas | Texas |
| Doster-Northington, Inc. | Birmingham | Ala. |
| L. Eisen & Co., Inc. | Yonkers | N. Y. |
| Hornick, More & Porterfield | Sioux City | Iowa |
| Huntington Drug Co. | Huntington | W. Va. |
| C. S. Littell & Co., Inc. | New York | N. Y. |
| C. J. Lincoln Company | Little Rock | Ark. |
| J. S. Merrell Drug Co. | St. Louis | Mo. |
| Ogden Wholesale Drug Co. | Ogden | Utah |
| Parker-Blake Co., Ltd. | New Orleans | La. |
| Peter-Neat-Richardson | Louisville | Ky. |
| C. E. Potts Drug Co. | Wichita | Kansas |
| J. B. Riley Drug Co. | Macon | Ga. |
| Roanoke Drug Co. | Roanoke | Va. |
| Schuh Drug Co. | Cairo | Ill. |
| Charles E. Schumacher Co. | Brooklyn | N. Y. |
| Spokane Drug Co. | Spokane | Wash. |
| Spurlock-Neal Co. | Nashville | Tenn. |
| Stewart & Holmes Drug Co. | Seattle | Wash |
| Alfred Vogeler Drug Co. | Cincinnati | Ohio |
| Noyes Bros. & Cutler, Inc. | St. Paul | Minn. |

"The addition of these units gives McKesson & Robbins an additional $41,000,000.00 annual sales with a total of 56 centrally located distributing points in the United States and makes immediately effective a new constructive and economical plan, for the distribution of drug products from manufacturers to consumers," states the company which follows;

"Of particular interest to the retail druggists will be an increase in trade discounts enabling them to compete at least on an equal basis with chain store groups in the sale of nationally advertised products. The general public will be benefited by being able to purchase in independent drug stores nationally advertised products at prices which heretofore only the large chains have been in a position to offer."

## Pitman-Moore Co. Merges

The Pitman-Moore Co., Indianapolis, has merged with four manufacturers of serum, the new company to be known as Allied Laboratories, Inc. The principal products of all of the companies involved are animal serums.

Included in the merger, beside Pitman-Moore, are: The Royal Serum Co., Kansas City; The Sioux City Serum Co., of Sioux City, Iowa; The Sioux Falls Serum Co., Sioux Falls, South Dakota; and the United Serum Company, Wichita, Kansas.

The merger of the companies will be effected by an exchange of stock of the five companies for common stock in the new company. The purposes of the combination are to create greater economies in production and distribution, standardization of the quality of veterinary biologics, development of increased facilities for research work in diseases of domestic animals, more effective co-operation with the veterinary profession in stimulating the demand for its service, and improvement of facilities for service.

The valuation of the combine is said to be about $2,500,000, and each company involved will continue to operate as a separate unit.

Syntharome Laboratories, Inc., 249 Pearl st., New York, have purchased the plant equipment of Pierre Lemoine Dr. Perry N. Zang is secretary in charge of production.


# Profitable New Selling Plan Offered to Manufacturers With Volume Around $1,000,000

***At once cuts sales expense down and greatly increases volume and profits for manufacturers selling their own brands to the consumer. Brings merger advantages without sacrificing your independence.***

THE independent manufacturer who wants to run his own business in his own way has a tough fight on his hands to-day. These tremendous mergers, manufacturer, jobber and retailer combinations, drug and department store chains, will make it increasingly difficult for the independent of moderate size to sell his merchandise without prohibitive expense.

Yet what red blooded man wants to practically throw his business into the hands of others? There may be a few benefits at the start, but what is to guarantee their continuance? These big combinations have their own products to sell and cannot help but give these preference. If you join the combination, where will you come out in the end?

### *More Profitable Business Than Ever For the Independent. Here's How*

Admittedly the picture looks black—unless you DO something. And you can. If your product is advertised and sold under your own brand to consumers through drug and department stores, and if you are doing a business of around $1,000,000 a year, we have a plan whereby you can retain all the benefits of independence and personal control of your business, yet more than offset every advantage of the big combinations, chains and mergers.

This plan immediately increases your sales force, yet *without adding one penny to your present sales expense.* Naturally this increased force will at once begin to greatly increase your volume. It is a known fact that, other things being equal, the more calls the more sales. It goes without saying that with greater volume and no increase in expense your profits will rise immediately.

In other words, this plan immediately gives you four or five times as many first-class, experienced salesmen as you have now. With this larger force you can not only cover present markets more intensively, but can greatly expand your sales operations. Your volume begins to go up at once, yet on this plan sales expense remains exactly the same as before. And the best part of it is that you retain all your original individuality and independence. Your manufacturing, financing, advertising and other activities remain absolutely free and separate.

### *Write for Plan. No Obligation*

This remarkable plan will be presented absolutely free-of-charge and without obligation to any manufacturer who advertises and sells his own brand or brands to consumers through drug and department stores, and whose sales volume is around $1,000,000 or more a year.

Even if you cannot use *all* of the plan you will probably find several very valuable ideas in it that you can adopt. The number who can use the plan is definitely limited, so we suggest that you write for it to-day. Ask for the Five-Way Selling Plan. Address Steuerman Service, *Advertising* 15 East 26th Street, New York City.

*THE sand bars in front of Chatham, Cape Cod, fended off the Pilgrims . . . Provincetown was bleak and cold, so these seekers after religious freedom settled permanently at Plymouth, Massachusetts, just before the Christmas of 1620. Would a kindlier climate have softened the Pilgrim austerity? It is only conjecture, but in missing their more southerly destination, the Pilgrim development of New England was assured.*

ALCOHOL EVERCLEAR ALCOHOL
REG. U.S. PAT. OFF.

# "SEE AMERICAN FIRST"

**Odorless, Colorless, EVERCLEAR Alcohol**

**PURITY is the basis of excellence in manufacturing. This cornerstone of success is recognized by manufacturers of quality products, who insist upon the highest purity in alcohol.**

**"Everclear" Alcohol meets every requirement imposed by quality production. Purity is always apparent in "Everclear" through its remarkable clearness and complete lack of odor.**

**An exclusive process of distillation, originated in our plant in the grain fields, is largely responsible. Service on "Everclear" Alcohol is measured to the strictest requirements, through a distributive system which places an "American" warehouse *close to you*.**

***This is number 3 of a series depicting historical periods in the development of America***

"SEE AMERICAN FIRST"
COMMERCIAL ALCOHOL CORPORATION

420 Lexington Avenue, New York, N. Y.

*Plants:*
Pekin, Ill. Philadelphia, Pa. Sausalito, Cal. Gretna, La.

# Drug Industry Stocks

| 1929 Apr. 30th Bid | 1929 Apr. 30th Asked | 1929 High | 1929 Low | 1928 High | 1928 Low | Sales in Apr. | Sales from Jan. 1,1929 to Apr. 30th | ISSUES | Par $ | Shares Listed | An. Rate | Earnings $-per share-$ 1928 | | Earnings $-per share-$ 1927 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | NEW YORK STOCK EXCHANGE | | | | | | |
| 280 | 283 | 305¾ | 241 | 252¾ | 146 | 38,600 | 341,300 | Allied Chemical | No | 2,178,109 | $6.00 | | | 10.03 |
| 144½ | 144¾ | 144¾ | 107¾ | 117¼ | 70½ | 1,824,000 | 5,794,900 | American Can | 25 | 2,473,998 | 3.00 | | | 4.11 |
| 140¾ | 142 | 142 | 140¾ | 147 | 136¾ | 5,400 | 15,700 | pfd | 100 | 412,333 | 7.00 | | | 31.66 |
| 55¼ | 55¾ | 58¼ | 46¾ | 50¾ | 44 | 26,300 | 173,200 | American Chicle | No | 373,190 | 2.00 | 9 mo. | 6.48 | 41.04 |
| ... | ... | 114¾ | 109½ | 114 | 107 | ... | 700 | pfd | No | 33,200 | 7.00 | 9 mo. | 42.13 | 6.78 |
| ... | ... | 11 | 9 | 15¼ | 10½ | ... | 33,100 | American Drug Syn | 10 | 1,000,000 | 0.80 | | | 0.81 |
| 79½ | 80 | 85¾ | 75 | 86 | 59 | 46,500 | 231,500 | American Home Products | No | 534,000 | 3.00 | 6 mo. | 2.52 | 3.67 |
| 64½ | 66 | 67 | 56¾ | 83¼ | 70½ | 6,400 | 32,700 | Certo Corp | No | 300,000 | 3.00 | 9 mo. | 5.19 | 3.87 |
| 16 | 16¾ | 23¼ | 14¾ | 36 | 20 | 14,600 | 86,300 | Container Corp. Class A | 20 | 271,189 | 1.20 | 9 mo. | 1.46 | 2.26 |
| 8 | 8½ | 11¼ | 6 | 19¼ | 9¾ | 19,200 | 151,500 | Container Corp. Class B | No | 568,289 | .60 | 9 mo. | 0.73 | 1.13 |
| 75¼ | 75¾ | 80¼ | 60 | 128¼ | 53 | 350,400 | 1,602,800 | Continental Can | No | *710,000 | *5.00 | 8 mo. | 7.61 | 7.21 |
| 125 | 125¼ | 126 | 124¾ | 128 | 123 | 600 | 910 | pfd | 100 | 51,125 | 7.00 | 8 mo. | 111.39 | 86.82 |
| 97¾ | 99½ | 101¼ | 82 | 94 | 64¾ | 282,400 | 503,700 | Corn Products | 25 | 2,530,000 | 2.00 | 9 mo. | 3.00 | 3.50 |
| 141½ | 142¾ | 144 | 141¼ | 146¾ | 138½ | 2,410 | 6,210 | pfd | 100 | 250,000 | 7.00 | 9 mo. | 35.63 | 42.40 |
| 63 | 63¾ | 82½ | 51 | 89¾ | 62¾ | 147,400 | 1,289,900 | Coty, Inc | No | †327,762 | †2.00 | 9 mo. | 9.23 | 10.80 |
| 116 | 116½ | 126¼ | 110 | 120¾ | 80 | 34,100 | 233,100 | Drug Incorporated | No | 2,183,990 | 4.00 | 8 mo. | 3.60 | 11.47 |
| 67¼ | 67¾ | 84¼ | 65¼ | 89¼ | 65 | 145,000 | 727,300 | Fleischmann | No | 4,500,000 | ‡3.50 | 9 mo. | 3.24 | 4.30 |
| 69¾ | 71 | 79¼ | 65¾ | 84 | 64¼ | 9,000 | 47,900 | Household Products | No | 575,000 | ‡4.00 | 6 mo. | 2.64 | 5.22 |
| 17 | 17¾ | 23 | 15 | 27¼ | 13¾ | 1,400 | 23,800 | Kresge | 10 | 3,678,720 | ‡1.60 | 9 mo. | 2.76 | 3.76 |
| 72 | 73¾ | 73¼ | 71¼ | 118 | 110¾ | 140 | 940 | pfd | 100 | 20,000 | 7.00 | 9 mo. | 512.30 | 698.85 |
| 145¼ | 145¾ | 157¾ | 127¾ | 136¾ | 79¾ | 185,000 | 1,481,800 | Lambert Co | No | 571,906 | ‡6.50 | 9 mo. | 6.62 | 6.23 |
| 55 | 57 | 68¼ | 52¾ | 64¼ | 38 | 13,300 | 201,700 | Lehn & Fink | No | 295,000 | 3.00 | 6 mo. | 3.25 | 4.32 |
| ... | ... | 39¾ | 29½ | 40¾ | 28¼ | ... | 13,900 | Life Savers | No | 550,000 | 1.60 | 10 mo. | 2.10 | 2.01 |
| 51¾ | 52 | 59 | 49 | 50¾ | 45¾ | 12,700 | 131,300 | McKesson & Robbins, Com | No | 664,409 | 1.60 | 4 mo. | 1.42 | 0.91 |
| 58 | 58¾ | 62 | 55 | 63¼ | 54 | 7,800 | 48,000 | pfd | 50 | 315,086 | 3.50 | 4 mo. | 4.15 | 8.94 |
| 51 | 51¾ | 52¾ | 50 | 190 | 117¾ | 15,680 | 64,380 | Mathieson Alkali | No | 147,207 | 6.00 | 9 mo. | 9.54 | 10.93 |
| 50 | 51 | 55¼ | 33 | 71¾ | 51¾ | 12,300 | 97,400 | Nat'l Dist. Pfd | No | 107,720 | ..... | | | 0.55 |
| 86 | 86½ | 98¾ | 81 | 95¾ | 74¾ | 10,500 | 123,200 | Owens Bottle | 25 | 768,860 | 4.00 | 9 mo. | 4.13 | 5.37 |
| 63 | 64 | 87¾ | 60½ | 56¾ | 47¾ | 20,800 | 225,300 | Park & Tilford | No | 200,000 | 3.00 | 9 mo. | 5.09 | 3.70 |
| 55 | 63 | 82¾ | 59 | 91 | 52 | 300 | 950 | Prophylactic Brush | No | 100,000 | ‡4.00 | 6 mo. | 2.47 | 6.18 |
| ... | ... | ... | ... | ... | ... | ... | ... | Rossville Com'l Alcohol Corp | No | 120,000 | ..... | | | |
| 21¼ | 21¾ | 41¼ | 21 | 67¼ | 35¾ | 147,600 | 709,300 | Schulte | No | 1,121,667 | 3.50 | 6 mo. | 1.99 | 4.90 |
| 17¼ | 18¼ | 22¼ | 15¾ | 23¼ | 11¾ | 80,200 | 114,200 | Sweets Am | 50 | 100,000 | 1.00 | 9 mo. | 0.97 | 0.47 |
| 170½ | 171½ | 171 | 128 | 138 | 102½ | 178,200 | 647,300 | U. S. Ind Alc | No | 240,000 | 6.00 | 6 mo. | 3.90 | 7.26 |
| ... | ... | 127 | 124¼ | 125¼ | 118¾ | 20 | 850 | pfd | 100 | 60,000 | 7.00 | 6 mo. | 19.12 | 36.03 |
| 91¼ | 92 | 94¼ | 82 | 85 | 58 | 18,400 | 132,200 | Vick Chemical Co | No | 400,000 | 4.00 | | 6.06 | 5.36 |
| ... | ... | 15 | 13 | 25¾ | 11¾ | ... | ... | Vivaudou | No | 381,573 | ..... | 9 mo. | 0.61 | 2.19 |
| ... | ... | ... | ... | 100 | 78 | ... | ... | pfd | 100 | 28,578 | 7.00 | 9 mo. | 13.32 | 35.42 |
| 223¼ | 224 | 228¼ | 192½ | 225¼ | 175¼ | 222,000 | 527,600 | Woolworth, F. W | 25 | 3,900,000 | 6.00 | | | 9.06 |
| 73 | 76 | 80¾ | 70 | 84 | 68 | 6,000 | 72,000 | Wrigley | No | 1,800,000 | ‡3.50 | 9 mo. | 4.38 | 5.43 |
| | | | | | | | | NEW YORK CURB | | | | | | |
| ... | ... | 7¼ | 4 | 21¼ | 6¼ | 700 | 7,500 | Allison Drug Class A | No | 70,000 | ..... | 6 mo. | 0.33 | 7 mo. 2.03 |
| ... | ... | 5¼ | 2¼ | 15½ | 3¼ | 7,200 | 44,900 | Allison Drug Class B | No | 95,000 | ..... | 6 mo. | | 7 mo. 0.89 |
| 88 | 88½ | 90 | 74 | 87¾ | 74 | 24,200 | 70,000 | American Com'l Alc. Corp. V.T.C. | No | 77,000 | ..... | 3 mo. | 2.66 | |
| 29 | 30¼ | 40¾ | 26½ | 28¾ | 11¾ | 6,500 | 129,100 | Amer. Sol. & Chem. Corp., V.T.C. | No | 160,000 | ..... | | 1.58 | 0.17 |
| ... | ... | 55¼ | 46¾ | 47¾ | 25¼ | 3,700 | 65,300 | Con. Partic pfd | No | 100,000 | $3.00 | | 4.00 | 3.17 |
| ... | ... | 109½ | 89¾ | 97¾ | 65 | 8,400 | 57,500 | Bristol Myers Co. Com | No | 180,000 | 4.00 | 6 mo. | 3.80 | 5.82 |
| ... | ... | ... | ... | ... | ... | ... | ... | Ches. Mfg. Co | 25 | 120,000 | ..... | | | 8.49 |
| ... | ... | 80¾ | 66½ | 92 | 75 | 6,500 | 28,900 | Colgate-Palmolive-Peet Com | No | | 2.00 | | | |
| ... | ... | ... | ... | ... | ... | 100 | 100 | pfd | No | | 6.00 | | | |
| ... | ... | 57¾ | 35 | 57¼ | 56 | 3,200 | 20,700 | Davis Drug Stores Allot. Ctfs | No | 100,000 | ..... | 7 mo. | 6.71 | 5.02 |
| ... | ... | 33¾ | 24¼ | 38¾ | 23 | 1,800 | 8,600 | Forhans | No | 150,000 | 1.00 | | 1.89 | 2.21 |
| ... | ... | 30 | 19¾ | 23 | 7¼ | 2,900 | 8,000 | Heyden Chemical Corp | 10 | 150,000 | ..... | | | 1.02 |
| ... | ... | ... | ... | ... | ... | ... | ... | May Drug Stores | No | 200,000 | 1.50 | | 1.38 | 1.82 |
| ... | ... | 59¾ | 56½ | 72 | 53¾ | 1,100 | 18,500 | Mead-Johnson | No | 165,000 | 3.00 | 6 mo. | 2.94 | 6.33 |
| ... | ... | 130 | 125¼ | 98 | 38½ | 200 | 400 | Monsanto Chemical | No | 110,000 | 2.50 | 9 mo. | 6.30 | 6.11 |
| ... | ... | 12 | 10 | 28¼ | 10¼ | 500 | 2,500 | Nauheim Pharmacies Com | No | 90,000 | ..... | | | 3.03 |
| ... | ... | ... | ... | 37¾ | 20¾ | ... | 4,200 | pfd | No | 45,000 | 2.50 | | | 8.56 |
| ... | ... | 58¾ | 48¾ | 55 | 38 | 1,500 | 17,200 | Parke Davis & Co | No | 4,747,829 | 1.00 | | 1.73 | 1.54 |
| ... | ... | 94 | 74¾ | 91 | 48 | 17,00 | 30,950 | Peoples Drug Store | No | 122,250 | 1.00 | | | 3.31 |
| 345 | 350 | 370 | 281 | 300 | 247 | 1,350 | 10,475 | Proctor & Gamble | 20 | 1,250,000 | 8.00 | | 11.96 | 11.38 |
| 85 | 87 | 91 | 71¼ | 102¼ | 37½ | 13,200 | 77,500 | Walgreen Co. Com | No | 766,354 | ..... | 9 mo. | 2.17 | 1.59 |
| ... | ... | ... | ... | 43 | 26¾ | ... | 23,800 | Woodworth, Inc., Com | No | 100,00 | 1.50 | 6 mo. | 1.04 | 11 mo. 3.68 |
| ... | ... | 44¾ | 31¼ | 48¾ | 27 | 2,120 | 44,900 | Zonite Products Corp | No | 176,000 | ..... | | | 6 mo. 0.98 |
| | | | | | | | | CLEVELAND | | | | | | |
| ... | ... | 270 | 200 | 112½ | 25 | 157 | 601 | Dow Chem. Co | No | 120,000 | 6.00 | | | |
| ... | ... | 107 | 105 | 107 | 103¾ | ... | 273 | pfd | 100 | 30,000 | 7.00 | | | |
| ... | ... | 42 | 27 | 30 | 24 | 1,815 | 10,105 | Miller Wholesale Drug Com | No | 17,000 | 1.60 | | | |
| ... | ... | 48 | 24 | 24 | 21¼ | 1,296 | 6,871 | Weinberger Drug, Com | No | 20,000 | ..... | 9 mo. | 3.51 | 1.35 |
| | | | | | | | | CHICAGO | | | | | | |
| ... | ... | 50 | 39 | ... | ... | 12,450 | 12,450 | Abbott Laboratories | No | 120,000 | 2.00 | | | |
| ... | ... | 29¾ | 16 | 31¼ | 21¼ | 5,750 | 58,150 | Lane Drug Co., Com | No | 90,000 | ..... | 7 mo. | 1.47 | 3.13 |
| ... | ... | 32 | 20 | 31¼ | 23 | 800 | 28,910 | Cum. pfd | No | 65,000 | ..... | 7 mo. | 3.20 | 6.34 |
| | | | | | | | | CINCINNATI | | | | | | |
| ... | ... | 41¼ | 28¼ | ... | ... | 812 | 1,199 | Dow Drug Co | No | 90,000 | 1.00 | | | |
| ... | ... | ... | ... | ... | ... | ... | ... | pfd | 100 | 4,000 | 7.00 | | | |
| | | | | | | | | BALTIMORE | | | | | | |
| ... | ... | 100¼ | 99¼ | ... | ... | 41 | 41 | Sharp & Dohme, pfd | 100 | 10,000 | 7.00 | | | |
| ... | ... | 111 | 110 | ... | ... | .. | 26 | | | | | | | |
| | | | | | | | | UNLISTED | | | | | | |
| ... | ... | ... | ... | ... | ... | ... | ... | Heyden Chemical Corp., pfd | 100 | 3,100 | 7.00 | | | 56.18 |
| ... | ... | ... | ... | ... | ... | ... | ... | Merck Pfd | 100 | 33,950 | 5.00 | | | |
| ... | ... | ... | ... | ... | ... | ... | ... | Mulford, H. K. & Co | 100 | 30,154 | 3.00 | | | |
| ... | ... | ... | ... | ... | ... | ... | ... | Noxzema Chem. Co | | | ..... | | | |
| ... | ... | ... | ... | ... | ... | ... | ... | Squibb Com | No | 411,778 | ..... | | | 1.69 |
| ... | ... | ... | ... | ... | ... | ... | ... | pfd | No | 63,888 | 6.00 | | | 16.92 |

*Before giving effect to 100% stock dividend.
†Before giving effect to 300% stock dividend.
‡Includes extras.

# Prices Current

*Medicinal, Aromatic, and Photographic Chemicals, Crude Drugs, Spices, Essential Oils and Concentrates, Miscellaneous Raw Materials, etc.*

Chemical prices quoted are of American manufacturers, spot New York, f. o. b. for immediate shipment, unless otherwise specified.

Products sold f. o. b. works are so specified. Imported chemicals are so designated. Resale stocks, when a market factor, are indicated "second hand."

Crude Drugs and Essential Oils are quoted f. o. b. New York (Manhattan with limitations) for immediate shipment.

The range of price given is not "bid and asked," but are prices of different sellers, based on varying grades and/or quantities. Containers named are original packages most commonly sold.

**Acetanilid**
**Ammonium Valerate**

# Chemicals

## Monthly Review

### Alcohol Market Competitive

Although an attempt was made to advance alcohol prices by 2c per gallon with 1c increase for June-July deliveries, an additional 1c advance for August deliveries, and 1c additional advance for September-December deliveries, the whole new schedule has been abandoned and old prices are in force.

To buyers of 16,000 gallons or over, a discount of 1c per gallon was offered, which amount is refunded after shipment and payment of the stated gallonage. This is offered as an additional inducement to buyers to take out all alcohol contracted for and so protect the distiller from the somewhat prevalent practice of the buyer asking for cancellation of unordered balances on old contracts. This should have the effect of stimulating the jobber to dispose of all alcohol contracted for so as to benefit by this 1c per gallon rebate.

The new schedule was printed up and distributed by leading manufacturers on April 30 for effect May 1. Slightly over a week later leading manufacturers announced the presence of keen competition in the market with the result that the lower prices of the old schedule were again put in force. Not only that but manufacturers will now accept orders through December at the present day price. This means that anti-freeze buyers can now contract for their demands for the Winter season.

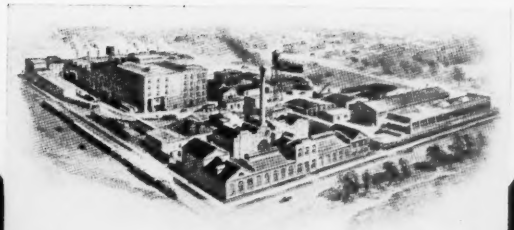
The reason lying behind the demoralized price condition is not entirely clear. However, it is more than possible that the past Winter was mild and stocks are large. This competition is particularly surprising in view of the higher molasses prices brought about by the close control of molasses supplies that now exists. The present low prices being offered through December is also very surprising in view of the fact that a molasses tariff is a distinct possibility.

Manufacturers state that the present situation is only temporary and present prices may be revoked any day. This means that when certain manufacturers have secured all they want of the anti-freeze business, or have caused other manufacturers to take too much of this business at low prices so that their quotas are short, the price will advance to where it was or higher for the additional business. In other words, with the present controlled conditions of alcohol supplies it seems that buyers of alcohol should welcome such a condition as this to cover a considerable portion of their requirements.

The new freight rates are also now in effect. These revised freight schedules take care of less carlot shipments from cities into which carlots are shipped for less carlot distribution to the consumer. Small towns not receiving carlot shipments formerly had to pay the less carload freight rate from the seaboard, whereas under the new revised schedules they pay the less carload freight rate only from the nearest city receiving carload shipments. The freight actually paid is a carlot rate from the seaboard

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Acetanilid, USP, 200 lb bbls..lb. | .36 | .37 | .37 | .36 | .37 | .28 |
| Acetone, pure 350 lb drs wks.. | .17 | .19 | .19 | .16 | .18 | .14 |
| Acetphenetidin, 225 lb bbls..lb. | 1.25 | 1.35 | 1.35 | 1.25 | 1.40 | 1.25 |
| **ACID,** Acetylsalicylic, 225 lb ....bbls. | .85 | .90 | .90 | .85 | .90 | .85 |
| Agaric, 1 oz vials ....oz. | ..... | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| Arsenous, USP, 220 lb bbls lb. | ..... | .18 | .18 | .18 | .18 | .18 |
| Benzoic, USP, 100 lb bbls..lb. | .60 | .61 | .61 | .60 | .61 | .60 |
| Boric, 300 lb bbls....lb. | .07½ | .08 | .10½ | .07½ | .12 | .11 |
| Cacodylic, 5 lb. bot....lb. | ..... | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
| Camphoric, USP, VIII 1 lb bot....lb. | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 | 4.82 |
| Carbolic, USP, crys 112 lb tins....lb. | .14 | .15 | .15 | .14 | .21 | .14 |
| Cinnamic, 5 lb cans....lb. | 3.25 | 3.50 | 3.50 | 3.25 | 3.50 | 3.25 |
| Citric, USP, crys 230 lb bbl ....lb. | ..... | .46 | .46 | .46 | .46 | .44½ |
| USP, crys imp. 112 lb keg ....lb. | .59 | .61 | .61 | .59 | .61 | .55 |
| USP, powd 200 lb bbl ..lb. | ..... | .47 | .47 | .47 | .47 | .45½ |
| Diethylbarbituric, 1 lb bot lb. | ..... | 4.60 | 4.60 | 4.60 | 4.60 | 4.60 |
| Gallic, USP, 150 lb bbls..lb. | ..... | .74 | .74 | .74 | .74 | .74 |
| Glycerophosphoric, 25% 1 lb bot....lb. | 1.40 | 1.75 | 1.75 | 1.40 | 1.45 | 1.40 |
| Hydriodic, USP, 10% 5 lb bot....lb. | ..... | .80 | .80 | .80 | .80 | .80 |
| Hydrobromic, USP, 40% 155 lb. cbys....lb. | ..... | .55 | .55 | .55 | .55 | .55 |
| Hypophosphorous, USP, 30% ....lb. 5 gal demis....lb. | ..... | .85 | .85 | .85 | .85 | .85 |
| Lactic, USP, VIII 100 lb cbys lb.... | .56 | .62 | .62 | .56 | .62 | .56 |
| USP, X 100 lb cbys....lb. | .62 | .64 | .64 | .62 | .64 | .62 |
| Phenylcinchonic....lb. | ..... | 4.50 | 4.50 | 4.50 | 4.50 | 4.50 |
| Phosphoric, USP, Syr 70 lb drs....lb. | .14 | .15 | .15 | .14 | .16 | .14 |
| Pyrogallic, crys 5 lb cans..lb. | 1.40 | 1.50 | 1.50 | 1.40 | 1.50 | 1.40 |
| Resublimed, 5 lb cans...lb. | 1.80 | 1.85 | 1.85 | 1.80 | 1.85 | 1.80 |
| Salicylic, USP, 100 lb bbls..lb. | ..... | .40 | .40 | .40 | .41 | .40 |
| Succinic, 100 lb bbls.....lb. | ..... | 1.35 | 1.35 | 1.35 | 1.35 | 1.35 |
| Sulfurous, USP, 6% 100 lb cbys....lb. | .05 | .06 | .06 | .05 | .06 | .05 |
| Tannic, USP, fluffy 50 lb bbls. ....lb. | .87 | .93 | .93 | .87 | .93 | .87 |
| Powd 200 lb bbls.....lb. | .80 | .85 | .85 | .80 | .85 | .80 |
| Tartaric, USP, 300 lb bbls..lb | ..... | .38 | .38 | .38 | .38 | .35 |
| Aconitine, Alk, crys 1 oz vials ....oz. | ..... | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 |
| Amorphous, 1 oz vials....oz. | ..... | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| Adeps Lanae, hyd 350 lb bbls lb. | .15 | .16 | .16 | .15 | .16 | .15 |
| Anhydrous, 350 lb bbls....lb. | .16 | .18 | .18 | .16 | .19 | .16 |
| Agaricin, 1 oz vis incl.....oz. | ..... | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 |
| **ALCOHOL,** Benzyl, 5 lb bot lb. | 1.25 | 1.35 | 1.35 | 1.25 | 1.55 | 1.25 |
| Ethyl, USP, 190 pf 50 gal bbls....gal. | 2.69½ | 2.79½ | 2.79½ | 2.69½ | 2.79½ | 2.66½ |
| Pure tax free....gal. | .61 | .69 | .69 | .61 | .77 | .54 |
| Grain drums....gal. | 2.69 | 2.79 | 2.79 | 2.69 | 4.00 | 2.67 |
| Denatured, drums add 7c for bbls.... | | | | | | |
| No. 1 spec....gal. | .49 | .57 | .57 | .47 | .55 | .43 |
| 1 comp....gal. | .50 | .58 | .58 | .48 | .56 | .44 |
| No. 5 comp....gal. | .49 | .57 | .57 | .47 | .56 | .44 |
| 23 a, spec....gal. | .50½ | .58½ | .58½ | .48½ | .68 | .43½ |
| 39 b, spec....gal. | .53 | .62 | .71 | .62 | .71 | .56 |
| 40 m, spec....gal. | .48½ | .56½ | .66½ | .56½ | .66½ | .51½ |
| Isopropyl refd 98-99% drs ....gal. | 1.25 | 1.50 | 1.50 | 1.25 | 1.50 | 1.25 |
| Phenylethyl, 1 lb bot....lb. | 8.00 | 10.00 | 10.00 | 8.00 | 10.00 | 8.00 |
| Aloin, USP, 100 lb cases....lb. | 1.65 | 1.70 | 1.70 | 1.25 | 1.30 | .90 |
| Aluminum Acetotartrate kegs ....lb. | ... | 1.60 | 1.60 | 1.60 | 1.60 | 1.60 |
| Amidipyrine, 10 lb boxes....lb. | 4.25 | 4.45 | 4.45 | 4.25 | 4.75 | 4.25 |
| **AMMONIUM,** Acetate 100 lb kegs....lb. | .38 | .40 | .40 | .30 | .38 | .34 |
| Benzoate, USP, 1 lb bot...lb. | ..... | 1.27 | 1.27 | 1.27 | 1.27 | 1.27 |
| Borate, 10 lb bot....lb. | ..... | .35 | .35 | .35 | .35 | .35 |
| Bromide, USP, 450 lb bbls.lb. | .48 | .50 | .50 | .48 | .50 | .48 |
| Imported, 112 lb boxes..lb. | .48 | .50 | .50 | .48 | .50 | .48 |
| Carb, USP, lump 100 lb kegs ....lb. | ..... | .13½ | .13½ | .13½ | .13½ | .13½ |
| USP, powd 100 lb kegs..lb. | ..... | .14½ | .14½ | .14½ | .14½ | .14½ |
| Citrate, 100 lb kegs....lb. | .85 | .90 | .90 | .85 | .90 | .85 |
| Ichthyolate, as to brand..lb. | 4.00 | 4.50 | 4.50 | 4.00 | 4.50 | 4.00 |
| Iodide, USP, 25 lb jars...lb. | ..... | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 |
| Phosphate, dibasic 250 lb bbls ....lb. | .48 | .50 | .50 | .43 | .48 | .43 |
| Salicylate, USP, 100 lb kegs ....lb. | 1.15 | 1.20 | 1.20 | 1.15 | 1.20 | 1.15 |
| Valerate, USP, 25 lb jars...lb. | 2.75 | 2.90 | 2.90 | 2.75 | 2.90 | 2.75 |

FINE
HEYDEN
CHEMICALS



GARFIELD, N. J., PLANT

**Benzoate of Soda** **Benzoic Acid**

**FORMALDEHYDE**

**Benzaldehyde** **Benzyl Chloride**

*Our Products Meet the Most Exacting Requirements.*

PERTH AMBOY, N. J., PLANT

**HEYDEN CHEMICAL CORP.**

45 E. 17TH STREET NEW YORK
180 N. WACKER DRIVE CHICAGO

## { Monthly Review }

to the near-by city, and less carlot rate from the city to the small town. These rates should result in substantial savings to less carload buyers in small towns.

### Italian Tartaric Acid Profits

Tartaric acid remains steady in price and in constant demand. The first annual report of the Appula, the principal Italian producer of tartaric acid, since its reorganization, under the control of the Distillerie Italiana, has just been published and is reported by Trade Commissioner Elizabeth Humes of Rome as follows:

"Net profits last year were 3,646,900 lire, (1 lire — $0.0523 United States currency) on which a dividend of 10 per cent. has been declared as compared to no dividend paid last year. The company benefited materially under the Italo-German agreement, which gives these countries practical control of the world market for tartaric acid. Other factors which contributed to a successful year were the formation of a centralized sales office, the Societa Anonima Italtartar, through which all the tartaric acid made in Italy is marketed, and the agreement with the Arenella, whereby the Arenella gave up the manufacture of tartaric acid and the Appula that of citric acid."

### Cod Liver Oil Demand Dull

Exports of common cod oil through the port of St. John continue to fall off as more of the oil from fresh cod livers is diverted to the refined cod-liver oil, according to U. S. Vice-Consul Thomas D. Bergin, St. John's, Newfoundland. In 1928 exports of technical cod oil used for tanning decreased from 764,396 gallons to 650,614 gallons, while exports of refined cod-liver oil increased from 293,081 gallons to 357,694 gallons.

Cod liver oil is firm as to price with the market "rather dull." The increase of last month is maintained spot quotations being $29 @ $30 per barrel. Figures from Norway under date of April 22 follow:

| Year | Cods | Bbls. Crude Oil | Bbls. Livers |
|---|---|---|---|
| 1929 | 64,400,000 | 80,862 | 8,156 |
| 1928 | 51,584,000 | 42,020 | 7,891 |
| 1927 | 55,603,000 | 63,020 | 6,015 |
| 1926 | 55,776,000 | 84,396 | 10,437 |
| 1925 | 38,900,000 | 68,742 | 7,693 |

Japanese iodine to the extent of approximately 70 per cent. of the production has been exported to Soviet Russia in recent years, its amount in value during a year between October 1927 to October 1928 having been estimated at 600,000 yen. The amount was expected to reach the million mark by the end of the last year. During recent months, however, Soviet Russia suddenly discontinued buying Japanese iodine and began to import Chilian iodine. Naturally, the Japanese producers are now confronted by the problem of over-production and are now seeking a market in Germany.

### Glycerine Remains Weak

Glycerin remains very quiet and price is nominally 15c per pound in bulk. Foreign correspondents write: "While the news from your side seems unfavorable, the situation here maintains its firmness. The market for the Crude

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Amylene Hydrate, 1 lb bot..lb. | ..... | 7.10 | 7.10 | 7.10 | 7.10 |
| Antipyrine, USP, 100 lb cans.lb. | 1.53 | 1.55 | 1.55 | 1.53 | 1.75 | 1.53 |
| Apomorphine Hydrochloride, ¼ oz. vials.....oz. | 22.60 | 22.70 | 22.70 | 22.60 | 35.80 | 22.60 |
| Arecoline Hydrobrom, 1 oz vials .....oz. | 7.75 | 8.75 | 8.75 | 7.75 | 11.45 | 7.75 |
| Aspidospermine Amorphous..oz. | ..... | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| Atropine Alk, USP, 1 oz. vials .....oz. | 7.00 | 9.10 | 9.10 | 7.00 | 9.10 | 9.10 |
| Methyl bromide, 1 oz vials.oz. | ..... | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| Sulfate, 5 oz cans.....oz. | ..... | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| Single ounce.....oz. | ..... | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 |
| Barium Iodide, 5 lb box.....lb. | ..... | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 |
| Sulfate, X-ray diagn bbls..lb. | .09½ | .10 | .10 | .09½ | .10 | .09½ |
| **BAY RUM** Porto Rico, 45 gal. bbls.....gal. | .85 | .90 | .90 | .85 | .90 | .80 |
| Domestic syn. 50 gal bbl..gal. | .70 | .75 | .75 | .70 | .75 | .65 |
| St. Thomas, 50 gal bbls...gal. | .80 | .90 | .90 | .80 | .90 | .80 |
| Benzonaphthol, 5 lb boxes...lb. | 2.50 | 2.60 | 2.60 | 2.50 | 2.60 | 2.50 |
| Benzoyl Cholride, 500 lb dr..lb. | ..... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Benzyl Benzoate, Medicinal FFC.....lb. | ..... | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| Chloride Redis, 160 lb cby.lb. | .30 | .35 | .35 | .30 | .35 | .30 |
| Formate, 1 lb bot.....lb. | 3.25 | 3.50 | 3.50 | 3.25 | 3.50 | 3.25 |
| Succinate, 160 lb cby.....lb. | ..... | 5.25 | 5.25 | 5.25 | 5.25 | 5.25 |
| **BISMUTH**, metal 100 lb cases .....lb. | ..... | 1.70 | 1.70 | 1.70 | 2.25 | 1.70 |
| Ammon. Citrate, USP, 5 lb cans.....lb. | ..... | 5.50 | 5.50 | 5.50 | 5.65 | 5.50 |
| Betanaphtholate, 5 lb box.lb. | ..... | 3.10 | 3.10 | 3.10 | 3.35 | 3.10 |
| Citrate, USP, 5 lb cans....lb. | ..... | 2.75 | 2.75 | 2.75 | 2.95 | 2.75 |
| Chloride.....lb. | ..... | 3.15 | 3.15 | 3.15 | 3.40 | 3.15 |
| Hydroxide.....lb. | ..... | 3.05 | 3.05 | 3.05 | 3.30 | 3.05 |
| Nitrate, 25 lb jars.....lb. | ..... | 1.80 | 1.80 | 1.80 | 1.95 | 1.80 |
| Oxide anhydrous.....lb. | ..... | 3.40 | 3.40 | 3.40 | 3.70 | 3.40 |
| Oxychloride, 25 lb boxes...lb. | ..... | 3.10 | 3.10 | 3.10 | 3.35 | 3.10 |
| Salicylate, 25 lb boxes.....lb. | ..... | 1.80 | 1.80 | 1.80 | 1.95 | 1.80 |
| Subcarbonate, USP, 25 lb boxes.....lb. | ..... | 2.20 | 2.20 | 2.20 | 2.70 | 2.20 |
| Subcarbonate, X-ray diag 1 lb. bot.....lb. | ..... | 3.45 | 3.45 | 3.45 | 3.65 | 3.40 |
| Subgallate, USP, 25 lb boxes .....lb. | ..... | 2.50 | 2.50 | 2.50 | 2.70 | 2.50 |
| Subiodide, 5 lb lots.....lb. | ..... | 4.25 | 4.25 | 4.25 | 4.40 | 4.20 |
| Subnitrate, USP, 25 lb jar.lb. | 1.60 | 1.65 | 1.65 | 1.60 | 2.30 | 1.60 |
| Subsalicylate, USP, 25 lb boxes.....lb. | ..... | 2.90 | 2.90 | 2.90 | 3.15 | 2.90 |
| Tannate.....lb. | ..... | 2.65 | 2.65 | 2.65 | 2.65 | 2.45 |
| Borax, crys USP, 400 lb bbls.lb. | ..... | .03½ | .03½ | .03½ | .05 | .03½ |
| Bromoform, USP, 5 lb bot cases .....lb. | 1.65 | 1.90 | 1.90 | 1.65 | 1.90 | 1.65 |
| Butylchloral Hydrate bot....lb. | 4.00 | 5.00 | 5.00 | 4.00 | 5.00 | 4.00 |
| Cadmium iodide, 10 lb bot...lb. | ..... | 4.55 | 4.55 | 4.45 | 4.55 | 4.45 |
| **CAFFEINE** Alk, USP, 1..... 100 lb kegs.....lb. | 2.90 | 2.95 | 2.95 | 2.90 | 3.20 | 2.80 |
| Citrated, 50 lb cans.....lb. | 2.35 | 2.60 | 2.60 | 2.00 | 2.25 | 2.00 |
| Hydrobromide, 1 lb bot...lb. | 4.80 | 5.00 | 5.00 | 4.80 | 5.00 | 4.65 |
| Hydrochloride, 1 lb bot...lb. | 6.05 | 6.55 | 6.55 | 6.05 | 6.55 | 6.05 |
| Sulfate, 1 lb bot.....lb. | 5.40 | 5.90 | 5.90 | 5.40 | 5.90 | 5.40 |
| Sodium Benzoate, tins....lb. | ..... | 3.05 | 3.05 | 3.05 | 3.05 | 3.05 |
| Salicylate, tins.....lb. | ..... | 2.95 | 2.95 | 2.95 | 2.95 | 2.95 |
| Calcium Bromide, 100 lb cs..lb. | ..... | .60 | .60 | .60 | .60 | .60 |
| Carb, USP, 175 lb bbls....lb. | .04½ | .06½ | .06½ | .04½ | .06½ | .04½ |
| Glycerophos, 250 lb bbls...lb. | ..... | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| Hypophos, USP, 25 lb cans lb. | .60 | .65 | .65 | .60 | .65 | .60 |
| Iodide, 5 lb bot.....lb. | ..... | 4.35 | 4.35 | 4.35 | 4.35 | 4.35 |
| Lactate, USP, 500 lb bbls lb. | .45 | .50 | .50 | .45 | .50 | .45 |
| Lactophosphate Soluble...lb. | ..... | 1.20 | 1.20 | 1.20 | 1.20 | 1.20 |
| Powdered tins.....lb. | ..... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Insol, powd tins.....lb. | ..... | .50 | .50 | .50 | .50 | .50 |
| Sulfide, USP, 100 lb drs...lb. | .21½ | .24 | .24 | .21½ | .25 | .20 |
| **CAMPHOR**, Jap. ref. slabs 100 lb. cases.....lb. | .59½ | .60 | .60 | .59½ | .66 | .57 |
| Refined powd.....lb. | .63 | .64 | .64 | .63 | .70 | .62 |
| ½ oz tab, 100 lb cases....lb. | .75 | .76 | .76 | .73 | .75 | .68 |
| Liniment, bbls.....gal. | 2.20 | 2.30 | 2.30 | 2.20 | 2.30 | 2.20 |
| Monobrom, 100 lb cases...lb. | 1.85 | 1.90 | 1.90 | 1.85 | 1.90 | 1.85 |
| Casein edible, 100 lb kegs...lb. | .45 | .55 | .55 | .45 | .55 | .45 |
| Chalk drop, 175 lb bbls.....lb. | ..... | .03½ | .03½ | .03½ | .03½ | .03½ |
| Precip light, 250 lb csk....lb. | ..... | .04½ | .04½ | .04½ | .04½ | .04½ |
| Heavy 540 lb csks.....lb. | .02½ | .03½ | .03½ | .02½ | .03½ | .02½ |
| Bulk.....ton | ..... | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| English, 7 lb bags.....lb. | ..... | .08½ | .08½ | .08½ | .08½ | .08½ |
| Charcoal Animal medicinal jars incl.....lb. | ..... | .50 | .50 | .50 | .50 | .50 |
| Charcoal Wood, powd, 100 lb. bbls.....lb. | .05½ | .06 | .06 | .05½ | .06 | .05½ |
| Chloroform, USP, 50 lb drs...lb. | ..... | .30 | .30 | .30 | .30 | .28 |
| Chloral Hydrate, USP, 25 lb jars.....lb. | .60 | .65 | .80 | .75 | .80 | .70 |
| 100 lb drums.....lb. | .55 | .60 | .75 | .70 | .75 | .65 |
| Cholesterin.....oz. | 5.50 | 5.85 | 5.85 | 5.50 | 5.85 | 4.00 |
| Chromium Sulfate Scales, tins .....lb. | .55 | .60 | .60 | .55 | .60 | .55 |
| Powdered tins.....lb. | .60 | .65 | .65 | .60 | .65 | .60 |
| Chrysarobin, 50 lb tins.....lb. | 3.75 | 4.10 | 4.25 | 3.75 | 4.25 | 3.65 |
| Cinchonine Alk, 100 oz tins.oz. | ..... | .38 | .38 | .38 | .38 | .38 |
| Crystal.....oz. | .43 | .46 | .68 | .65 | .68 | .65 |
| Sulfate, 100 oz tins.....oz. | ..... | .25 | .25 | .25 | .25 | .25 |
| Cinchonidin Sulfate, 100 oz tins .....oz. | .35 | .35 | .35 | .35 | .35 | .35 |
| Cocaine Alk, USP, 1 oz vial..oz. | ..... | 11.07 | 11.07 | 11.07 | 11.07 | 11.07 |
| Hydrochloride, USP.....oz. | ..... | 8.50 | 8.50 | 8.50 | 8.50 | 8.50 |
| Cocoa Butter, 12 lb boxes...lb. | .42 | .45 | .45 | .42 | .50 | .40 |

# "ROCHE"

Digitalin Pure
Eserine Sulphate
Brucine Sulphate
Brucine Alkaloid
Codeine Sulphate
Atropine Alkaloid
Guaiacol Benzoate
Aconitine and Salts
Veratrine Alkaloid
Codeine Phosphate
Duboisine Sulphate
Pilocarpine Nitrate
Hydrastine Sulphate
Acid Diethylbarbituric
Colchicine Amorphous
Berberine Sulphate Acid
Arecoline Hydrobromine
Veratrine Hydrochloride
Hydrastine Hydrochloride
Berberine Sulphate Neutral
Strychnine Sulphate Crystal
Strychnine Alkaloid Crystal
Strychnine Alkaloid Powder
Homatropine Hydrobromide
Hyoscymine Alkaloid Crystals
Potassium Guaiacol Sulphonate

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Strophanthin
Saponin Purified
Cocaine Alkaloid
Codeine Alkaloid
Eserine Salicylate
Atropine Sulphate
Sparteine Sulphate
Sodium Cacodylate
Veratrine Sulphate
Creosote Carbonate
Morphine Sulphate
Guaiacol Carbonate
Hydrastine Alkaloid
Cocaine Hydrochloride
Emetine Hydrochloride
Hyoscine Hydrobromide
Berberine Hydrochloride
Yohimbin Hydrochloride
Pilocarpine Hydrochloride
Hyoscymine Hydrobromide
Hydrastinine Hydrochloride
Strychnine Sulphate Powder
Apomorphine Hydrochloride
Hyoscymine Sulphate Crystals
Ethylmorphine Hydrochloride

THE HOFFMANN LAROCHE CHEMICAL WORKS, INC.

17-19-21 CLIFF STREET, NEW YORK, N. Y.

# Chemicals

## { Monthly Review }

Glycerine is still remaining steady with practically no alteration in the prices. Notwithstanding the low activity of the market, sellers are not inclined to make any concessions. Offers in general remain very scarce.

There seems to be little doubt that the reduction in the Glycerine production owing to the actual very low level of prices, will be felt much more in the present year than it has been the case previously. Such situation may have its influence on the market and it may already account in some way for the actual steadiness of the market and the vain efforts on the part of the buyers to bring prices down."

### Cinchona Exports Increase

The shipments of Cinchona bark from Java during the past few years were as follows:

| | *Half-Kilos* | | *Half-Kilos* |
|---|---|---|---|
| 1915-16 | 17,634,541 | 1923 | 13,804,000 |
| 1916-17 | 6,818,000 | 1924 | 13,158,000 |
| 1918 | 4,878,000 | 1925 | 9,158,000 |
| 1919 | 11,802,000 | 1926 | 12,078,640 |
| 1920 | 9,052,000 | 1927 | 11,793,990 |
| 1921 | 9,202,000 | 1928 | 13,380,882 |
| 1922 | 13,222,000 | | |

The exports of quinine (kilos) from Java were as follows: 1919, 642,719; 1920, 418,661; 1921, 519,940; 1922, 124,591; 1923, 250,805; 1924, 238,142; 1925, 179,982; 1926, 130,939; 1927, 74,749; 1928, 47,430 kilos.

The following table shows the exports of cinchona and coca leaves from Java during the period January to November, 1928, compared with those of the corresponding period of 1927 (amounts in kilos):—

| | *Cinchona* | | *Cocoa* | |
|---|---|---|---|---|
| | *Jan-Nov. 1927 kilos.* | *Jan-Nov. 1928 kilos.* | *Jan-Nov. 1927 kilos.* | *Jan-Nov. 1928 kilos.* |
| Great Britain | 432,273 | 271,950 | ... | ... |
| British India | 143,091 | 99,809 | ... | ... |
| China | 7,135 | ... | ... | ... |
| Germany | ... | 20,671 | 72,705 | 40,601 |
| Italy | 8,265 | 30,293 | ... | ... |
| Japan | 447,510 | 334,860 | 183,019 | 24,879 |
| Netherlands | 4,373,004 | 5,374,916 | 455,073 | 310,675 |
| Port Timor | ... | 25 | ... | ... |
| Russia in Europe | ... | 2,084 | ... | ... |
| U. S. A. | ... | ... | ... | 21,780 |
| Total | 5,411,278 | 6,144,608 | 710,977 | 397,936 |

Exports of quinine from Java during the first eleven months of 1928 were 43,433 kilos, against 52,266 kilos during the same period of 1927.

Exports of cinchona bark and derivatives from the Netherlands to the United States during 1926, 1927, and 1928 were valued at $1,715,000, $945,000, and $1,002,000, respectively.

Quinine has been so scarce in Soviet Russia that the People's Commissariat of Public Health has issued orders that quinine and medicines containing quinine must be sold for the treatment of malaria exclusively.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| **CODEINE** Alk, 1 oz vials, 10 lots oz. | ..... | 10.37 | 10.37 | 10.87 | 10.37 |
| Hydrobromide oz. | ..... | 7.42 | 7.42 | 7.92 | 7.42 |
| Hydrochloride oz. | ..... | 9.37 | 9.37 | 9.87 | 9.37 |
| Nitrate, oz vl 10 oz lots oz. | ..... | 8.30 | 8.30 | 8.80 | 8.30 |
| Phosp, oz vl, 10 oz lots oz. | ..... | 7.92 | 7.92 | 8.42 | 7.92 |
| Salicylate oz. | ..... | 6.75 | 6.75 | 7.25 | 6.75 |
| Sulfate, oz vl, 10 oz lots oz. | ..... | 8.42 | 8.42 | 8.92 | 8.42 |
| **COD LIVER OIL** Nor., 30 gal bbls. bbl. | 29.00 | 30.00 | 36.00 | 22.00 | 48.00 | 38.00 |
| Newfoundland bbl. | ..... | 46.00 | 46.00 | 46.00 | 46.00 | 46.00 |
| Colchicino Alk, USP, 1 oz vl oz. | ..... | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| Salicylate, 1 oz vls oz. | ..... | 35.50 | 35.50 | 35.50 | 35.50 | 35.50 |
| Collodion, USP, 30 lb drs lb. | ..... | .23 | .23 | .23 | .23 | .23 |
| Corn Syrup, 42 deg. 50 gal bbls. 100 lb. | 3.91 | 4.16 | 4.16 | 3.91 | 4.51 | 3.31 |
| Cream Tartar, USP, 300 lb bbls lb. | .27½ | .28 | .28 | .27½ | .28 | .26 |
| Imp. powd. 224 lb bbls lb. | .26½ | .27 | .27 | .26½ | .27½ | .25½ |
| Creosote, USP, 42 lb cbys lb. | .40 | .42 | .42 | .40 | .42 | .40 |
| Carbonate, 150 lb. lb. | 1.50 | 1.60 | 1.60 | 1.50 | 1.60 | 1.50 |
| Cresol, USP, 400 lb drums lb. | ..... | .20 | .20 | .20 | .20 | .20 |
| 500 lb drums lb. | ..... | .20 | .20 | .20 | .20 | .20 |
| **DIGITALIN** Pure, 1 oz vial oz. | 15.00 | 15.50 | 15.50 | 15.00 | 15.50 | 15.00 |
| Dover's Powder, USP, 5 lb tin lb. | 2.45 | 2.50 | 2.50 | 2.45 | 2.50 | 2.45 |
| Duboisine Sulfate, 1 oz vl oz. | ..... | 30.07 | 30.07 | 30.07 | 30.07 | 30.07 |
| Emetine Alk, 15 gr vial oz. | ..... | .85 | .85 | .85 | .85 | .85 |
| Hydrochloride, USP, 1 oz vl oz. | 35.00 | 36.00 | 36.00 | 35.00 | 36.00 | 35.00 |
| 15 grain vials oz. | 2.50 | 2.70 | 2.70 | 2.50 | 2.70 | 2.50 |
| Epsom Salts, USP, 200 lb bbls 100 lb. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 1.85 |
| Imp. 100 lb bbls 100 lb. | 1.95 | 2.00 | 2.00 | 1.95 | 2.00 | 1.95 |
| Ergotin Bonjean, 1 lb jars lb. | 18.50 | 19.00 | 19.00 | 18.50 | 21.00 | 15.25 |
| Eserine Alk, 1 oz vials oz. | ..... | 50.00 | 50.00 | 50.00 | 40.00 | 40.00 |
| Salicylate, 1 oz vials oz. | ..... | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 |
| Sulfate, USP, VIII 1 oz vials oz. | ..... | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 |
| **ETHER,** USP, 55 lb drums lb. | ..... | .18 | .18 | .18 | .16 | .15 |
| Anaesthesia, 55 lb drums lb. | ..... | .23 | .23 | .23 | .21 | .20 |
| Nitrous, 1 lb bot lb. | ..... | .80 | .98 | .80 | .95 | .95 |
| Ethyl Chloride, 200 lb bot lb. | .22 | .24 | .24 | .22 | .25 | .22 |
| Ethyl Iodide, 5 lb bot lb. | ..... | 6.25 | 6.25 | 6.25 | 6.25 | 6.25 |
| Formaldehyde, USP, 100 lb cbys lc-l wks lb. | .10½ | .10½ | .10½ | .09½ | .10 | .07½ |
| Gall Extract lb. | .20 | .21 | .21 | .20 | .21 | .20 |
| Gelatin, USP, Silver, 100 lb cs lb. | .55 | .60 | .60 | .55 | .60 | .55 |
| Pure Food, 50 lb bbls lb. | .53 | .55 | .55 | .53 | .55 | .53 |
| **GLANDULAR SUBSTANCES** | | | | | | |
| Duodenal Substance, 1 lb lots | ..... | 5.50 | ..... | ..... | ..... | ..... |
| Liver Substance (Hepatic) 1 lb lots | ..... | 4.50 | ..... | ..... | ..... | ..... |
| Orchic Substance (Testicular) | ..... | 4.75 | ..... | ..... | ..... | ..... |
| Ovarian Substance, whole, 1 lb lots | ..... | 26.00 | ..... | ..... | ..... | ..... |
| Ovarian Residue, 1 lb lots | ..... | 20.00 | ..... | ..... | ..... | ..... |
| Pituitary Substance, whole 1 lb lots | ..... | 40.00 | ..... | ..... | ..... | ..... |
| Pituitary Substance, Anterior Lobe, 1 lb lots | ..... | 27.00 | ..... | ..... | ..... | ..... |
| Thyroid, U. S. P., 1 lb lots | ..... | 4.75 | ..... | ..... | ..... | ..... |
| Oxgall Powder, 1 lb lots. | ..... | 1.35 | ..... | ..... | ..... | ..... |
| Glucose, (grape sugar) dry 70° bags c-l NY 100 lb. | 3.14 | 3.24 | 3.24 | 3.14 | 3.24 | 3.14 |
| **GLYCERIN,** CP, 550 lb drums lb. | .14½ | .15 | .15½ | .14½ | .19 | .15 |
| Gold Chloride, bottles oz. | 12.00 | 12.50 | 12.50 | 12.00 | 12.50 | 12.00 |
| Guaiacol, liq. USP. 100 lb cbys lb. | 1.65 | 1.75 | 1.75 | 1.65 | 2.25 | 1.75 |
| Crystals lb. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 2.25 |
| Benzoate, 1 lb bottles lb. | ..... | 13.00 | 13.00 | 13.00 | 3.00 | 13.00 |
| Carbonate, 5 lb boxes lb. | 1.70 | 2.50 | 2.50 | 1.70 | 2.50 | 1.70 |
| Haarlem Oil, bot 6 gr cases gr. | ..... | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| Imported, 5 gross cases gr. | ..... | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| Halazone, 5 lb bot lb. | 2.75 | 3.25 | 3.25 | 2.75 | 3.25 | 2.75 |
| Hexamethylenetetramine, USP, 100 lb dr lb. | .56 | .62½ | .62½ | .56 | .62½ | .52 |
| Homatropine Hydrobrom USP. oz. | ..... | 14.50 | 14.50 | 14.50 | 14.50 | 14.50 |
| 5 oz and 1 oz vials oz. | ..... | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Hydrastine Alk, USP, 1 oz vial oz. | 20.50 | 21.00 | 21.00 | 20.50 | 21.00 | 20.50 |
| Hydrochlide, USP, 1 oz vials oz. | 20.50 | 21.00 | 21.00 | 20.50 | 21.00 | 20.50 |
| Sulfate, 1 oz vial oz. | 22.50 | 23.00 | 23.00 | 22.50 | 23.00 | 22.50 |
| Hydrastinine Hydrochloride, USP, 15 gr vials oz. | ..... | 40.00 | 40.00 | 40.00 | 40.00 | 40.00 |
| Hydrogen Peroxide, USP, soln 375 lb bbls lb. | .03½ | .04½ | .04½ | .03½ | .05 | .03½ |
| Hyoscine Hydrobrom, USP, 1 oz vials oz. | ..... | 13.57 | 13.57 | 13.57 | 13.57 | 13.57 |
| 5 oz, 1 oz vials oz. | 13.07 | 13.57 | 13.57 | 13.57 | 13.57 | 13.07 |
| Hyoscyamine Alk, crystals, 1 oz vials oz. | ..... | 25.07 | 25.07 | 25.07 | 25.07 | 25.07 |
| Amorphous, 1 oz vial oz. | ..... | 75.07 | 75.07 | 75.07 | 75.07 | 75.07 |
| Hydrobromide, USP, 1 oz vial oz. | ..... | 35.07 | 35.07 | 35.07 | 35.07 | 35.07 |
| Sulfate, 1 oz vial oz. | ..... | 25.07 | 25.07 | 25.07 | 25.07 | 25.07 |
| Hypoquinone, 100 lb kegs lb. | ..... | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| **ICHTHYOL,** tins lb. | 4.00 | 4.25 | 4.25 | 4.00 | 4.25 | 4.00 |
| Iodide Arsenous, 5 lb bot lb. | ..... | 5.20 | 5.20 | 5.20 | 5.20 | 5.20 |
| Arsenous-Mercuric soln, 5 lb bot lb. | ..... | .26 | .26 | .26 | .26 | .26 |

# MONSANTO GLYCEROPHOSPHATES

ACID CALCIUM
50%

CALCIUM
U. S. P.

SODIUM
Crystals, Powder, and Anhydrous-Powder

SODIUM
Solution, 75% and 50%

POTASSIUM
Solution, 75% and 50%

IRON
Powder and Scales

MAGNESIUM

MANGANESE

GLYCERO PHOSPHORIC ACID
25%

IF results from the administration of Glycerophosphates are to be satisfactory, a uniformly high purity must be maintained. Insistence on quality by the manufacturer is essential.

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FINE AND MEDICINAL CHEMICALS ⟷ TECHNICAL CHEMICALS ⟷ INTERMEDIATES

# Chemicals

## { Monthly Review }

### Glandular Imports

Glandular products, exported to the United States from Argentina are given by Vice Consul R. E. Ahearn, Buenos Aires. Gall stones and ox gall exports from Argentina to the United States through the port of Buenos Aires for the past two years were as follows:

| | Gall Stones | | Ox Gall | |
|---|---|---|---|---|
| | *Pounds* | *Value* | *Pounds* | *Value* |
| 1927 | 59 | $2,742 | 68,000 | $10,000 |
| 1928 | 68 | 1,977 | 8,750 | 1,125 |

Animal glands that could be used in the manufacture of pharmaceutical glandular products were exported to the United States during 1927 and 1928 to the extent of 16,235 pounds, valued at $15,600, and 66,000 pounds, valued at $8,900 respectfully.

### Menthol is Easy

The market on menthol is reported in the trade as being "slow and easy," U. S. P. is quoted at about $5.30 per pound and Synthetic at about $3.00. The Summer months are not conducive of exceptional activity in menthol and a gradual easing off in price might be looked for. Spot stocks are sufficient for what demand there is. Should there be any activity in the market before the end of the summer months, those in the know would attribute it merely to "speculation." Japan market remains firm.

### Mercury Position Unchanged

Mercury remains unchanged being very firm on spot with prices continuing at levels established last month, namely $124.00 and $124.50 per flask for spot material; $123.00 and $123.50 for prompt arrival; and $122.00 and $122.50 for shipment from London. Demand continues good.

### Phenol Shortage Continues

The shortage of Phenol (acid carbolic) is still acutely felt and producers are making every effort to catch up to the demand which is as heavy as ever. Price remains firm at 14c to 15c per pound as to quantity with no change taking place within the last four weeks.

### More Beeswax from Porto Rico

Beeswax has been produced by Porto Rico almost from the days of its colonization by Europeans, but not on a large scale. The market advantage enjoyed by Porto Rican honey does not apply to Porto Rican beeswax. Producers make no effort to furnish a wax which is attractive as to color, cleanliness, or uniformity of mold. They simply heat it and pour it into such vessels as they may have at hand, which are generally petroleum tins. Practically all Porto Rican beeswax is shipped to New York, and during the past four years the quantities and value were as follows:

| *Year* | *Quantity* | *Value* |
|---|---|---|
| 1925 | 39,000 pounds | $10,500 |
| 1926 | 26,000 pounds | 9,200 |
| 1927 | 21,000 pounds | 6,500 |
| 1928 | 33,000 pounds | 10,100 |

"Porto Rican beeswax is not graded and sells for about the same as African wax and a little under 'country run, ungraded,' produced in the United States," says Assistant Trade Commissioner J. R. McKey, of San Juan.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Iodine, crude, 200 lb kegs...lb. | 4.35 | 4.35 | 4.35 | 4.20 | 3.88 |
| Resublimed, 10 lb tars....lb. | 4.65 | 4.70 | 4.65 | 4.70 | 4.65 |
| Tincture demis.....gal. | 4.70 | 4.80 | 4.65 | 4.65 | 4.55 |
| Iodoform, powd 10 lb bot...lb. | ..... | 6.00 | 6.00 | 6.00 | 6.00 |
| Iron & Ammonium Citrate, USP, 50 lb cans.....lb. | .65 | .66 | .66 | .64 | .66 | .64 |
| Chloride, USP, lump 400 lb bbls.....lb. | .06 | .08 | .08 | .06 | .08 | .05½ |
| Citrate, USP, VIII 25 lb can .....lb. | .94 | 1.01 | 1.01 | .94 | 1.01 | .94 |
| Hypophosphite, 5 lb cans..lb. | 1.55 | 1.65 | 1.65 | 1.55 | 1.65 | 1.55 |
| Iodide, 1 lb bottles.....lb. | ..... | 4.28 | 4.28 | 4.28 | 4.28 | 4.28 |
| Phosphate, USP, 50 lb cans .....lb. | ..... | .69 | .69 | .69 | .69 | .69 |
| & Potas Oxalate, 250 lb bbl .....lb. | ..... | .45 | .45 | .45 | .49 | .45 |
| Pyrophosphate, USP, 50 lb .....lb. | .74 | .80 | .80 | .74 | .80 | .74 |
| & Sod Oxalate, 24 lb box...lb. | ..... | .30 | .30 | .30 | .30 | .30 |
| Sulfate, USP, crys bbls....lb. | .04½ | .04 | .04 | .04¼ | .04 | .04½ |
| Ferrous dried bbls.....lb. | ..... | .08 | .08 | .08 | .08 | .08 |
| Valerate, tins.....lb. | 2.75 | 3.00 | 3.00 | 2.75 | 3.00 | 2.75 |
| Jalap Resin, USP lumps, 5 lb tins.....lb. | ..... | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Powdered, tins.....lb. | ..... | 4.65 | 4.65 | 4.65 | 4.65 | 4.65 |
| Lead Acetate, USP, 100 lb kegs .....lb. | .15 | .18 | .18 | .15 | .18 | .15 |
| Iodide, USP, VIII 5 lb bot.lb. | 3.20 | 3.40 | 3.40 | 3.20 | 3.40 | 3.20 |
| Lecithin, 5 oz jars.....oz. | 1.00 | 1.30 | 1.30 | 1.00 | 1.30 | 1.00 |
| Licorice Ext Mass, cases....lb. | .14 | .20 | .20 | .14 | .20 | .14½ |
| Compound powder, bbls...lb. | .11 | .13 | .13 | .11 | .13 | .11 |
| **LITHIUM CARBONATE,** 250 lb bbls.....lb. | 1.50 | 1.60 | 1.60 | 1.50 | 1.60 | 1.50 |
| Citrate, USP, 100 lb kegs..lb. | ..... | 1.70 | 1.70 | 1.70 | 1.70 | 1.70 |
| Iodide, 5 lb bottles.....lb. | ..... | 5.40 | 5.40 | 5.40 | 5.40 | 5.40 |
| Lobeline Sulfate, ¼ oz vial...oz. | ..... | 8.75 | 8.75 | 8.75 | 8.75 | 8.75 |
| Magnesium Carbonate, USP, 100 lb bbls.....lb. | ..... | .10½ | .12 | .10½ | .12 | .12 |
| English, oz blocks.....oz. | .16 | .18 | .18 | .16 | .18 | .16 |
| Glycerophosphate, 5 lb tins .....lb | 3.20 | 3.25 | 3.25 | 3.20 | 3.25 | 3.20 |
| Hypophosphite, 5 lb cans..lb. | ..... | 1.05 | 1.05 | 1.05 | 1.05 | 1.05 |
| Salicylate, 100 lb kegs.....lb | ..... | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| Stearate, bbls.....lb. | .23 | .25 | .25 | .23 | .25 | .23 |
| Manganese Glycerophosphate, 5 lb tins.....lb. | 2.90 | 3.00 | 3.00 | 2.90 | 3.00 | 2.90 |
| Hypophosphite, USP, VIII 5 lb cans.....lb. | 1.35 | 1.40 | 1.40 | 1.35 | 1.40 | 1.35 |
| Iodide, 1 lb bottles.....lb. | 6.40 | 6.65 | 6.65 | 6.40 | 6.65 | 6.40 |
| **MENTHOL,** USP, 60 lb cases .....lb. | 5.30 | 5.55 | 6.00 | 5.30 | 6.25 | 4.10 |
| Synthetic, cases.....lb. | 3.00 | 3.25 | 3.25 | 3.00 | 3.50 | 3.00 |
| Mercury Metal, 75 lb flasks...fl. | 123.00 | 124.00 | 124.00 | 122.00 | 134.00 | 120.00 |
| Bichloride, crys 25 lb box..lb. | ..... | 1.81 | 1.81 | 1.81 | 1.81 | 1.81 |
| Gran powd, 100 lb kegs..lb. | ..... | 1.65 | 1.65 | 1.65 | 1.65 | 1.65 |
| Bisulfate, 25 lb boxes.....lb. | ..... | 1.62 | 1.62 | 1.62 | 1.62 | 1.62 |
| Blue Mass, 25 lb boxes.....lb. | ..... | 1.03 | 1.03 | 1.03 | 1.03 | 1.03 |
| Powd, 25 lb boxes.....lb. | ..... | 1.04 | 1.04 | 1.04 | 1.04 | 1.04 |
| Blue Ointment, USP, 50%, 25 lb cans.....lb. | ..... | 1.29 | 1.29 | 1.29 | 1.29 | 1.29 |
| Mild 30%, 25 lb cans....lb. | ..... | .92 | .92 | .92 | .92 | .92 |
| 33 1/3% mercury.....lb. | ..... | .94 | .94 | .94 | .94 | .94 |
| Calomel, 50 lb boxes.....lb. | ..... | 2.05 | 2.05 | 2.05 | 2.05 | 2.05 |
| English.....lb. | 2.75 | 2.80 | 2.80 | 2.75 | 2.80 | 2.75 |
| Iodide, green, 25 lb jars....lb. | ..... | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 |
| Red, USP, 25 lb jars....lb. | ..... | 4.89 | 4.89 | 4.89 | 4.89 | 4.89 |
| Yellow, USP, VIII, 25 lb jars.....lb. | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 | 4.80 |
| Red precip, USP, 25 lb boxes .....lb. | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| Powd., USP, 25 lb boxes.lb. | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 | 2.17 |
| White precip, USP, 25 lb boxes.....lb. | ..... | 2.20 | 2.20 | 2.20 | 2.20 | 2.20 |
| Powd., USP, 25 lb boxes.lb. | ..... | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| Salicylate, 25 lb bot.....lb. | ..... | 2.32 | 2.32 | 2.32 | 2.32 | 2.32 |
| With chalk, USP, 25 lb boxes .....lb. | ..... | .93 | .93 | .93 | .93 | .93 |
| Methanol, Pure 1c-1 drs....gal. | ..... | .57 | .57 | .57 | .60 | .48 |
| Methyl Salicylate, USP, 50 lb cans.....lb. | .42 | .45 | .45 | .42 | .45 | .42 |
| Methylene Blue, USP, med 5 lb cans.....lb. | 2.00 | 2.05 | 2.05 | 2.00 | 2.05 | 2.00 |
| Milk powd, 150 lb bbls.....lb. | .14 | .15 | .15 | .14 | .15 | .14 |
| **MORPHINE** Alk, 5 oz tin...oz. | ..... | 9.85 | 9.85 | 9.85 | 10.15 | 9.85 |
| Acetate, 5 oz tins.....oz. | ..... | 7.85 | 7.85 | 7.85 | 8.25 | 7.85 |
| Hydrobromide, 5 oz tins, 10 oz lots.....oz. | ..... | 7.85 | 7.85 | 7.85 | 8.35 | 7.85 |
| Hydrochloride, 5 oz tins, 10 oz lots.....oz. | ..... | 7.75 | 7.85 | 7.85 | 8.35 | 7.85 |
| Ethyl Hydrochloride, 5 oz tins 10 oz lots.....oz. | ..... | 9.35 | 9.35 | 9.35 | 9.85 | 9.35 |
| Sulfate, 5 oz tins, 10 oz lots .....oz. | ..... | 7.85 | 7.85 | 7.85 | 8.35 | 7.85 |
| Naphthalene Flake, 175 lb bbls wks.....lb. | .04½ | .05 | .05 | .04½ | .05 | .04½ |
| Balls, 250 lb bbls wks.....lb. | .05½ | .06 | .06 | .05½ | .06 | .05½ |
| Oil Mineral White, 50 ga bbls bbls 80-85 vis.....gal. | .60 | .65 | .65 | .60 | .65 | .60 |
| 85-90 vis.....gal. | .65 | .70 | .70 | .65 | .70 | .65 |
| 125-130 vis.....gal. | .70 | .80 | .80 | .70 | .80 | .70 |
| 290 vis.....gal. | 1.00 | 1.10 | 1.10 | 1.00 | 1.10 | 1.00 |
| Russian 110-115 vis.....gal. | .70 | .75 | .75 | .70 | .75 | .70 |
| 150-155 vis.....gal. | .73 | .80 | .80 | .73 | .80 | .67 |
| 325-335 vis.....gal. | .85 | .90 | .90 | .85 | .95 | .80 |
| Oxgall, Purified, 5 lb bot....lb. | 1.75 | 2.50 | 2.50 | 1.75 | 2.50 | 1.75 |
| USP, 5 lb bot.....lb. | 2.00 | 2.50 | 2.50 | 2.00 | 2.50 | 2.00 |
| Oxyquinoline Sulfate, tins...lb. | 8.50 | 9.25 | 9.25 | 8.50 | 9.25 | 8.50 |

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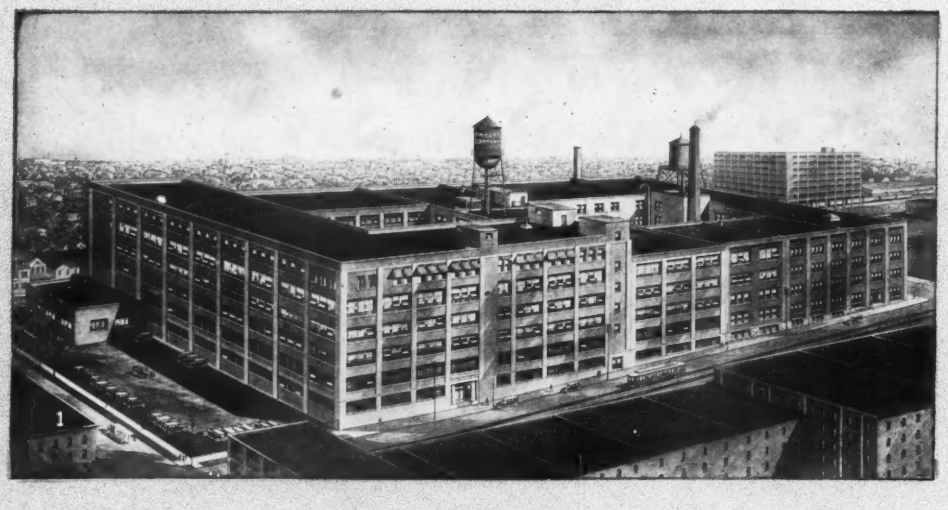

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## { Monthly Review }

### Swiss Pharmaceutical Competition Acute

Exports of pharmaceuticals from Basel to the United States increased from $246,161 in 1927 to $374,045 in 1928. The difference is largely due to quinine exports. Basel manufacturers who supply about 80 per cent. of all Swiss pharmaceutical exports, report that competition with foreign countries was more acute than ever before and that in many instances profits were sacrificed in order to hold their customers in line. The opinion was expressed that price agreements among the large manufacturers was the only remedy but very few such agreements were concluded during the past year.

The increasing uncertainty in the raw material market created many difficulties for the alkaloid industry, which resulted temporarily in higher prices for the finished product.

Basel manufacturers are specializing in the manufacture of pharmaceutical specialties, many of which are already well known throughout the world. The Swiss pharmaceutical, medicinal and toilet preparation exports to all countries for each year since 1920 were valued at 61,000,000, 30,000,000, 24,000,000, 29,000,000, 37,000,000, 39,000,000, 49,000,000, 48,528,000, 43,582,000 francs, respectively. (Consul C. M. Hitch, Basel.)

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### Argentina Dentifrice Consumption

Tooth powder is not very popular in Argentina, the demand being met by the limited importation of this product from the United States, which furnishes 97 per cent. of the imports, together with tooth powder which is manufactured in small quantities by the local chemists. The demand for tooth paste, on the contrary, is continually growing. There are at least 30 brands of tooth paste on sale in Argentina, but those which are produced locally are in greater demand because the local manufacturers are able to undersell the imported products. In this connection it should be said that many of the larger American, French, and German manufacturers of tooth pastes have representatives in Argentina who manufacture their products under their brand names, according to their respective formulas. One finds that out of the 30 or more tooth pastes on sale in Argentina probably 25 are made locally. The average retail price of the tooth paste is between 50 and 60 cents a tube.

Exports of dentifrices from the United States to Argentina during the last seven years were valued at $103,000, $108,000, $127,000, $155,000, $133,000, $80,000, and $74,000, respectively. (Commercial Attache Alexander V. Dye, Buenos Aires.)

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### Bulgarian Rose Exports

Bulgarian rose oil exports during the month of October 1928, according to the returns published by the General-Direction of Statistics, amounted to 103 kilos, valued at 7,857,069 leva, consigned to the following countries:—Great Britain, 9 kilos; Germany, 2 kilos; Greece, 2 kilos; United States, 56 kilos; France, 26 kilos; Switzerland, 2 kilos; other countries, 6 kilos. During the period January to October, 1928, inclusive, the total exports of rose oil from Bulgaria amounted to 2,904 kilos, valued at 221,447,487 leva.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Pancreatin, USP, 100 lb....lb. | ..... | 1.90 | 1.90 | 1.90 | ..... | ..... |
| Paraffin, refd, 200 lb cs slabs 118-120 deg MP.....lb. | .08 | .09 | .09 | .08 | .09 | .08 |
| 128-132 deg MP.....lb. | .07½ | .07¾ | .07¾ | .07½ | .07¾ | .07½ |
| Para-Aldehyde, USP, 100 gal drums.....lb. | .67 | .77 | .77 | .67 | .77 | .67 |
| Pepsin, USP, 100 lbs. 1:3000.lb. | ..... | 2.25 | 2.25 | 2.25 | 2.50 | 2.50 |
| 100 lbs. 1:6000.....lb. | ..... | 4.00 | 4.00 | 4.00 | 5.00 | 5.00 |
| 100 lbs. 1:10000.....lb. | ..... | 6.50 | 6.50 | 6.50 | 8.35 | 8.35 |
| Peptone, powd, 5 lb bot....lb. | ..... | ..... | ..... | ..... | ..... | ..... |
| Petrolatum, Lily White, USP 400 lb bbls.....lb. | .08 | .09 | .09 | .08 | .10 | .09 |
| Snow White, USP, 400 lb bbls.....lb. | .09¼ | .10 | .10 | .09¾ | .13¼ | .11¼ |
| **PHENOLPHTHALEIN,** USP, 100 lb drums.....lb. | 1.10 | 1.20 | 1.20 | 1.10 | 1.20 | 1.10 |
| 5 lb cans 100 lb lots..lb. | 1.23 | 1.30 | 1.30 | 1.23 | 1.30 | 1.23 |
| Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots .....oz. | ..... | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| Nitrate, 25 oz lots.....oz. | ..... | 3.25 | 3.25 | 3.25 | 3.25 | 3.25 |
| Single ounce.....oz. | ..... | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 |
| Alkaloid, 15 gr vials.....vl. | ..... | .75 | .75 | .75 | .75 | .75 |
| Piperazine Hydrate, 1 lb bot.lb. | ..... | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| Piperadine, 25 oz bottles....lb. | ..... | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
| Popodhyllin 5 lb bottles....lb. | 4.35 | 4.50 | 4.50 | 4.35 | 4.50 | 4.35 |
| Potassium Acetate, USP, 100 lb kegs.....lb. | .29 | .30 | .30 | .29 | .30 | .29 |
| Bicarb, USP, crys 320 lb bbls .....lb. | .13 | .13½ | .13½ | .08½ | .09 | .08½ |
| Bromide, USP, crys 100 lb cs .....lb. | .42 | .43 | .40 | .39 | .43 | .42 |
| Citrate, USP, 50 lb bbl....lb. | .51 | .53 | .55 | .51 | .55 | .51 |
| Guaiacol Sulfonate.....lb. | 1.95 | 2.25 | 2.25 | 1.95 | 2.25 | 1.95 |
| Hypophosphite, 10 lb cans.lb. | .80 | .85 | .85 | .80 | .85 | .80 |
| Iodide, USP, 100 lb cases..lb. | 3.50 | 3.55 | 3.55 | 3.50 | 3.80 | 3.25 |
| Lactophosphate, 4 oz bot..lb. | ..... | .90 | .90 | .90 | .90 | .90 |
| Permangan, USP, crys, 100 lb drs wks.....lb. | .15 | .15½ | .15½ | .15 | .16½ | .14½ |
| Phosphate dibasic pure, kegs .....lb. | ..... | .49 | .49 | .49 | .49 | .49 |
| Salicylate, 25 lb cans....lb. | ..... | 1.18 | 1.18 | 1.18 | 1.18 | 1.18 |
| Sulfate, USP, VIII, 100 lb kegs.....lb. | .13 | .15 | .15 | .13 | .15 | .13 |
| Sulfocyanide, CP 15 lb jars lb. | ..... | .50 | .50 | .50 | .50 | .50 |
| Tartrate, CP, tins.....lb. | ..... | .65 | .65 | .65 | .65 | .65 |
| Pyrogallol, USP, see Acid Pyrogallic.....oz. | ..... | ..... | ..... | ..... | ..... | ..... |
| Quinidine Alk, 100 oz tins...oz. | .70 | .75 | .75 | .70 | .75 | .70 |
| Sulfate, 100 oz tins.....oz. | ..... | .50 | .50 | .50 | .50 | .50 |
| **QUININE SULFATE,** USP, 100 oz tins.....oz. | ..... | .40 | .40 | .40 | .40 | .40 |
| 1 oz tins, 100 oz lots....oz. | ..... | .47 | .47 | .47 | .47 | .47 |
| Dutch, 100 oz tins.....oz. | ..... | .40 | .40 | .40 | .40 | .40 |
| Java, 100 oz. tins.....oz. | ..... | .40 | .40 | .40 | .40 | .40 |
| Japanese 100 oz tins.....oz. | ..... | .40 | .40 | .40 | .40 | .40 |
| Acetate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Arsenate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Benzoate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Bisulfate, USP.....oz. | ..... | .40 | .40 | .40 | .40 | .40 |
| Resale.....oz. | .37 | .39 | .39 | .37 | .39 | .37 |
| Citrate.....oz. | ..... | .51 | .51 | .51 | .51 | .51 |
| Dicarbonate, 1 oz tins....oz. | ..... | 2.56 | 2.56 | 2.56 | 2.56 | 2.56 |
| Dihydrobromide.....oz. | ..... | .54 | .54 | .54 | .54 | .54 |
| Dihydrochloride, USP....oz. | ..... | .54 | .54 | .54 | .54 | .54 |
| Ethyl Carbonate, 16 oz tins .....oz. | ..... | .58 | .58 | .58 | .58 | .58 |
| Ferrocyanide.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Formate.....oz. | ..... | .73 | .73 | .73 | .73 | .73 |
| Glycerophosphate.....oz. | ..... | .80 | .80 | .80 | .80 | .80 |
| Hydrobromide, USP.....oz. | ..... | .50 | .50 | .50 | .50 | .50 |
| Hydrochlorosulfate.....oz. | ..... | .54 | .54 | .54 | .54 | .54 |
| Hydrochloride & Urea, USP .....oz. | ..... | .74 | .74 | .74 | .74 | .74 |
| Hypophosphite.....oz. | ... | .70 | .70 | .70 | .70 | .70 |
| Lactate.....oz. | ..... | .66 | .66 | .66 | .66 | .66 |
| Phenolsulfonate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Phosphate.....oz. | ..... | .62 | .62 | .62 | .62 | .62 |
| Salicylate, USP.....oz. | ..... | .52 | .52 | .52 | .52 | .52 |
| Tannate, USP.....oz. | ..... | .41 | .41 | .41 | .41 | .41 |
| Tartrate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| Valerate.....oz. | ..... | .78 | .78 | .78 | .78 | .78 |
| & Urea Hydrochloride, USP .....oz. | ..... | .88 | .88 | .88 | .88 | .88 |
| Rennet, N. F. 5 lb 1:25,000..lb. | 2.95 | 3.50 | 3.50 | 2.95 | 3.50 | 2.95 |
| Resorcinol, USP, 25 lb cans..lb. | 1.60 | 1.65 | 1.75 | 1.65 | 2.00 | 1.70 |
| Rochelle Salt, USP, 225 lb bbl .....lb. | .23 | .23½ | .23½ | .23 | .23½ | .23 |
| Imp. USP, 300 lb bbls.....lb. | ..... | .23 | .23 | .23 | .23 | .23 |
| Rock Sugar, 5 lb boxes.....lb. | ..... | .15 | .15 | .15 | .15 | .15 |
| Saccharin, USP, 10 lb cans...lb. | 1.70 | 1.80 | 1.80 | 1.70 | 1.80 | 1.70 |
| USP, Soluble, 10 lb cans...lb. | 1.75 | 1.85 | 1.85 | 1.75 | 1.85 | 1.75 |
| Salicin, USP.....lb. | ..... | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 |
| **SALOL,** USP, 100 lb drums..lb. | ..... | .90 | .90 | .90 | .90 | .90 |
| Saltpetre, powd, bbls wks....lb. | .06½ | .08¼ | .08¼ | .06½ | .08¼ | .06½ |
| Santonin, USP, bulk.....lb. | ..... | 129.50 | 129.50 | 129.50 | 145.00 | 129.50 |
| Saponin, refined.....lb. | 1.30 | 1.50 | 1.50 | 1.30 | 1.50 | 1.30 |
| Siedlitz Mixture, 250 lb bb..lb. | ..... | ..... | ..... | ..... | ..... | ..... |
| Silver Metal, American.....oz. | ..... | .57½ | .57½ | .57½ | .60¼ | .57½ |
| Iodide, 16 oz lots.....oz. | ..... | .69 | .69 | .69 | .69 | .69 |
| Nitrate, 100 oz bottles....oz. | .40½ | .42½ | .42½ | .40¼ | .45 | .40½ |
| Nucleinate, bulk.....oz. | ..... | .37 | .37 | .37 | .37 | .37 |
| Proteinate.....oz. | ..... | .32 | .32 | .32 | .32 | .32 |
| Soap Castile, 50 lb boxes....lb. | ..... | .25 | .25 | .25 | .25 | .25 |
| USP, powd, 250 lb bbls....lb. | .28 | .30 | .30 | .28 | .30 | .28 |
| USP, green, 450 lb bbls....lb. | .07¼ | .07½ | .07½ | .07¼ | .07½ | .07¼ |

# Chemicals

## { Monthly Review }

### Synthetic Imports Increase

Preliminary figures for 1928 imports of a number of synthetic perfume and flavor materials indicate an increase in shipments of these materials into the United States. Imports of anisic aldehyde registered a five per cent. rise over the 1927 figure, while cinnamic aldehyde and coumarin experienced 70 per cent. increases in 1928 over 1927. Heliotropin, methyl cinnamate, and the synthetic musks showed an increase, as did also nerolin.

### Cloves and Vanillin

"In 1927 Zanzibar's production of cloves totalled 10,800 tons, that of Madagascar 1,300, of the Dutch East Indies 200, and of Penang six tons, so that Zanzibar furnished 88 per cent of the world's supply", according to Sir Claud Hollis, British Resident in Zanzibar. The price of the commodity is largely governed by the crop. In 1923-24, when there was a short crop of less than 5,000 tons, the price rose to some Rs.27 per frasila of 35 lbs., and during the next four years, in which the crop fluctuated from 10,000 to 13,000 tons, the price gradually decreased to Rs. 11 per 35 lbs. With the prospects of a short crop this season, the price has again increased and is now approximately Rs. 23.

### Algeria Gives Less Geranium Oil

Algerian geranium oil yield during 1928 was poor, reports Consul General Lewis W. Haskell, Algiers. Practically the entire production of essential oils in Algeria is made up of geranium oil. It was composed in 1927 of 642 metric tons out of the total essential oil production of 644 tons. Owing to the failure of the crop in other countries, prices were higher in 1928 and the demand from other quarters more insistent. Further, the autumn cutting was a complete failure in Algeria as was the earlier, with the result that buyers are holding off in the hope that good crops elsewhere will reduce prices shortly. Exports of geranium oil from Algeria through the port of Algiers in 1927 were 90,253 pounds, value $266,000 and during 1928 were 65,919 pounds, value $201,200.

### Angelica Firmness Based Upon Root

The strength of angelica oil is entirely due to the limited supply of angelica root in this country. The Department of Agriculture has recently been active in closely inspecting the root that is offered for import, with the result that very large lots have been rejected and reexported. This has caused a spot shortage of the root and consequently higher prices. The buyers of the root for oil distribution have been forced to advance their quotations. The situation is basically firm and is likely to stay so for some time to come.

### Demand for Mint Oil Steadily Increasing

Spearmint and peppermint culture in the United States could be considerably expanded beyond the 35,000 acres now growing the crops if greater commercial demands for the oils should develop, the Department of Agriculture announced March 25.

The full text of the statement follows:

The mints prefer deep, rich soil, well drained but retentive of moisture, and fairly open texture to permit easy root penetration. An abundance of humus is desirable.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| **SODIUM BENZOATE**, USP, 100 lb bbls.....lb. | .45 | .49 | .49 | .45 | .55 | .50 |
| Bromide, USP, 100 lb kegs.lb. | .42 | .43 | .43 | .42 | .43 | .42 |
| Cacodylate, USP, 25 lb bot .....lb. | 4.75 | 5.90 | 5.90 | 4.75 | 6.10 | 4.75 |
| Citrate, USP, X 50 lb kegs.lb. | .45 | .47 | .47 | .45 | .47 | .45 |
| USP VIII, 50 lb kegs....lb. | .38 | .40 | .40 | .38 | .40 | .38 |
| Glycerophosphate, USP, crys 25 lb cans.....lb. | 1.40 | 1.55 | 1.55 | 1.40 | 1.55 | 1.40 |
| Powder, 25 lb tins.....lb. | 1.45 | 1.60 | 1.60 | 1.45 | 1.60 | 1.45 |
| Soln, USP, 25 lb tins...lb. | 1.05 | 1.20 | 1.20 | 1.05 | 1.20 | 1.05 |
| Hypophosphite, USP, 25 lb cans.....lb. | .70 | .75 | .75 | .70 | .75 | .70 |
| Iodide, USP, 25 lb jars...lb. | 4.25 | 4.30 | 4.30 | 4.25 | 4.30 | 4.25 |
| Phosphate (Mono-Sodium), 100 lb kegs.....lb. | .30 | .31 | .31 | .30 | .31 | .30 |
| Di-Sodium USP, granular, 275 lb bbls.....lb. | .07½ | .08 | .08 | .07½ | .08 | .07½ |
| Pyrophosphate, 100 lb kegs .....lb. | ..... | .29 | .29 | .29 | .29 | .29 |
| Salicylate, 100 lb kegs....lb. | ..... | .47 | .47 | .47 | .47 | .47 |
| Silicate, 41° drums.....lb. | ..... | .01½ | .01½ | .01½ | .01½ | .01½ |
| 47° drums.....drm. | ..... | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| Sulfocarbolate, USP, 100 lb kegs.....lb. | ..... | .31 | .31 | .31 | .31 | .31 |
| Sulfocyanate, CP crys, jars included.....lb. | ..... | .60 | .60 | .60 | .60 | .60 |
| Spartein Sulfate, USP, 25 oz bulk.....oz. | .65 | .70 | .70 | .60 | .70 | .60 |
| Single oz vial .....oz. | .77 | .90 | .90 | .77 | .90 | .77 |
| Starch Rice, 140 lb bags....lb. | .09 | .10 | .10 | .09 | .10 | .09 |
| **STRONTIUM BROMIDE** USP, 50 lb kegs.....lb. | .51 | .52 | .52 | .51 | .52 | .51 |
| Carb, 100 lb kegs wks....lb. | ..... | .20 | .20 | .20 | .20 | .20 |
| Iodide, USP, 25 lb jars....lb. | ..... | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Lactate, kegs.....lb. | .90 | 1.10 | 1.10 | .90 | 1.10 | .90 |
| Nitrate, 600 lb bbls NY...lb. | .08 | .08½ | .08½ | .08 | .08½ | .08 |
| Imp. bbls NY.....lb. | .08 | .08½ | .08½ | .08 | .08½ | .08 |
| Salicylate, USP, 100 lb keg lb. | ..... | 1.10 | 1.10 | 1.10 | 1.10 | 1.10 |
| Strophanthin, USP, 1 oz vial.oz. | ..... | 19.00 | 19.00 | 19.00 | 19.00 | 19.00 |
| Crystals.....lb. | ..... | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 |
| Strychnine Alk, USP crys, 100 oz tins.....oz. | ..... | .66 | .66 | .66 | .66 | .56 |
| Powdered.....oz. | ..... | .56 | .56 | .56 | .56 | .46 |
| Acetate.....oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Arsenate, 25 oz cans.....oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Glycerophosphite, USP,...oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Hydrobromide.....oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Hydrochloride.....oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Hypophosphite.....oz. | ..... | .75 | .75 | .75 | .75 | .65 |
| Nitrate, USP.....oz. | .55 | .72 | .72 | .55 | .72 | .52 |
| Phosphate.....oz. | ..... | .65 | .65 | .65 | .65 | .55 |
| Sulfate, USP, crys, powd..oz. | .46 | .56 | .56 | .46 | .56 | .38 |
| Sugar, refined, 275 lb bbl 100 lb. | 5.80 | 5.90 | 5.90 | 5.80 | 5.90 | 5.80 |
| Milk, USP, 200 lb bbls...lb. | .18 | .20 | .20 | .18 | .20 | .18 |
| Sulfonethylmethane, USP, 10 lb boxes.....lb. | 3.85 | 4.05 | 4.05 | 3.85 | 4.05 | 3.85 |
| Sulonmethane, USP, 10 lb box .....lb. | 2.65 | 3.85 | 3.85 | 2.65 | 3.85 | 2.65 |
| Sulfur flwrs. washed, USP, 125 lb bbl.....lb. | ..... | .06 | .06 | .06 | .06 | .06 |
| Iodide, USP, VIII, 5 lb bot lb. | ..... | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 |
| **TARTAR EMETIC**, USP, 300 lb bbls.....lb. | .29 | .31 | .31 | .29 | .36 | .32½ |
| Terebene, tins.....lb. | ..... | .85 | .85 | .85 | .85 | .85 |
| Terpin Hydrate, USP, 100 lb kegs.....lb. | .40 | .42 | .42 | .40 | .47 | .40 |
| Theobromine Alk, 5 lb cans..lb. | 1.90 | 2.25 | 2.25 | 1.90 | 2.25 | 1.90 |
| Sod. Salicylate, 1 lb bot...lb. | ..... | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 |
| Sod. Benzoate, 1 oz vials..oz. | ..... | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Thymol, USP, 25 lb tins.....lb. | 2.55 | 2.70 | 2.70 | 2.25 | 2.75 | 2.25 |
| Iodide kegs.....lb. | 6.00 | 7.00 | 7.00 | 6.00 | 7.00 | 6.50 |
| Veratrine Alkaloid.....oz. | ..... | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| Sulfate, 1 oz vial.....oz. | ..... | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| Witch Hazel Ext., 50 gal bbl .....gal. | .80 | 1.00 | 1.00 | .80 | 1.00 | .80 |
| Zinc Carb, USP, 100 lb keg..lb. | .28 | .31 | .31 | .28 | .31 | .28 |
| Chloride, USP, 25 jars ex..lb. | .24 | .29 | .29 | .24 | .29 | .24 |
| Iodide, 5 lb bottles.....lb. | ..... | 5.22 | 5.22 | 5.22 | 5.22 | 5.22 |
| Oxide, USP, 100 lb bbls..lb. | .16½ | .17½ | .18 | .16½ | .18 | .17 |
| Stearate, USP, 50 lb bbl..lb. | .24 | .26 | .26 | .24 | .26 | .22 |
| Sulfate, USP, 100 lb bbl. lb. | .08 | .09 | .09 | .08 | .09 | .08 |
| Sulfocarbolate, 100 lb kegs..lb. | .23 | .29 | .29 | .23 | .29 | .29 |

## Natural Derivatives

| | | | | | | |
|---|---|---|---|---|---|---|
| Anethol, 2 lb bot.....lb. | 1.25 | 1.30 | 1.30 | 1.25 | 1.30 | 1.25 |
| Borneol, 1 lb bot.....lb. | 2.40 | 2.50 | 2.50 | 2.40 | 2.60 | 2.40 |
| Carvol, 5 lb bot.....lb. | 3.50 | 3.60 | 3.60 | 3.50 | 2.85 | 3.50 |
| Citral, 25 lb cans.....lb. | 2.70 | 2.75 | 2.75 | 2.70 | 2.75 | 2.70 |
| Citronellal 1 lb bot.....lb. | 2.70 | 2.75 | 2.75 | 2.70 | 3.25 | 2.70 |
| Eucalyptol, USP, 50 lb cans..lb. | 1.00 | 1.05 | 1.05 | 1.00 | 1.05 | 1.00 |
| Eugenol, USP, 25 lb cans....lb. | 2.70 | 2.75 | 2.75 | 2.70 | 2.90 | 2.70 |
| Geraniol, domestic, 50 lb cases .....lb. | 2.50 | 2.70 | 2.70 | 2.50 | 2.70 | 2.50 |
| Imported, 5 lb bot.....lb. | 2.90 | 3.10 | 3.10 | 2.90 | 3.10 | 2.90 |
| Iso-Eugenol, 1 lb bot.....lb. | 3.75 | 3.80 | 3.80 | 3.75 | 4.50 | 3.75 |
| Imported, 1 lb bot.....lb. | 3.70 | 3.80 | 3.80 | 3.70 | 3.80 | 3.70 |
| Linalol from Bois de Rose, 5 lb bot.....lb. | 3.20 | 3.25 | 3.25 | 3.20 | 3.25 | 3.00 |
| Rhodinol, 1 lb bot.....lb. | 7.50 | 7.75 | 7.75 | 7.50 | 7.75 | 6.00 |
| Saffrol, drums.....lb. | ..... | .27 | .27 | .27 | .27 | .27 |
| 60 lb cans.....lb. | ..... | .29 | .29 | .29 | .29 | .29 |

# CHLOROPHYLL

(Dr. F. Wilhelmi, Taucha Bez Leipzig)

YOU can find no color comparable to the natural leaf green and none so practical. Chlorophyll is the natural green of leaves. Dr. Wilhelmi's Chlorophyll is a pure vegetable product, Light proof and Alkali proof. It is used for coloring where for sanitary or other reasons an artificial dye is unsuitable.

It is supplied in various types depending on the degree to which the raw Chlorophyll is concentrated and the method of processing. Theoretically, the highest purity or concentration is the most economical, but for some purposes a weaker product may be more desirable. Let us show you the type best suited to your requirements.

**Oil Soluble**

For coloring vegetable oils, soaps, wax preparations, etc. For bleaching yellowish oils and soaps.

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# Aromatic Chemicals

## Monthly Review

These preferred conditions are most readily available in well-drained swamp lands, usually referred to as muck soils, which have been so successfully used for growing celery, onions, cabbage and similar crops. Upland fertile sandy or gravelly loams of good depth and proper texture that will produce potatoes and corn are also reasonably suitable for mint culture.

Both spearmint and peppermint yield an essential oil which is the principal marketable product, although there is a limited use for the dried herb of peppermint. Peppermint oil, which is the most important of the mint oils, enters into numerous medicinal products, but its principal use is for flavoring candies, chewing gum and tooth pastes. Spearmint oil is less in demand because its use is confined almost exclusively to the flavoring of chewing gum.

The culture of these two mint crops is described in Farmers' Bulletin 1555-F, "Peppermint and Spearmint as Farm Crops", just issued by the United States Department of Agriculture. Mint growing, if intelligently conducted, brings fair acreage returns to those who engage in it as an established farming operation. The crop is very susceptible to unfavorable weather, especially in the spring, and the yield of oil per acre therefore varies greatly from year to year.

The market demand for mint oils is steadily increasing, says the bulletin, but a sudden and considerable increase in production would no doubt have a most unfavorable effect on the industry.

A copy of the bulletin may be obtained by writing to the United States Department of Agriculture, Washington, D. C.

## No Relief From Lime Oil Shortage

While the very acute shortage and abnormally high prices for expressed and distilled lime oils have generally been attributed to the recurrent hurricanes which destroyed so many trees, there is another factor that has a great deal to do with the present situation. This cause is said to be an unknown desease from which the trees are at present subject to in large numbers. No definite cause of the disease has been found, and no cure or preventative has been discovered. Therefore, with any new plantings not bearing for two or three years, it is difficult to see how any relief can come during this year or next.

It appears more than likely, therefore, that the price will continue to advance until the heavy consuming season unless manufacturers of products containing lime oil divert demand to products with other flavors to a very great degree. To-day market prices are merely nominal because there are absolutely no floating supplies of any consequence.

### Limes Industry in Dominica

The crop shipped since 1919, calculated in barrels of fruit and expressed in round numbers, is recorded below:—1919, 402,000 (prior to appearance of withertip); 1920, 369,000 (prior to appearance of withertip); 1921, 516,000 (prior to appearance of withertip); 1922, 400,000 (prior to appearance of withertip); 1923, 228,000; 1924, 424,000 (owing to "carry over" from previous year); 1925, 230,000; 1926, 214,000; 1927, 210,000.

The following table calculated on the usual basis shows the disposal of the crop under various heads: Concentrated juice, 160,456 barrels of fruit, approximate percentage of

## Synthetic Aromatics

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Acetophenene, CP, 1 lb bot..lb. | 3.50 | 3.65 | 3.65 | 3.50 | 3.75 | 3.50 |
| Aldehyde, C 8 (Octyl) 1 lb bot ....lb. | ..... | 55.00 | 55.00 | 55.00 | 55.00 | 55.00 |
| C 7, 1 lb bot.....lb. | 4.50 | 5.50 | 5.50 | 4.50 | 5.50 | 4.50 |
| C 9 (Nomyl), 1 lb bot....lb. | ..... | 140.00 | 140.00 | 140.00 | 140.00 | 140.00 |
| C 10 (Decyl), 1 lb bot....lb. | ..... | 48.00 | 48.00 | 48.00 | 48.00 | 48.00 |
| C 14, 1 lb bot.....lb. | 22.50 | 25.00 | 25.00 | 22.50 | 25.00 | 22.50 |
| C 16, 1 lb bot.....lb. | 31.00 | 32.00 | 32.00 | 31.00 | 80.00 | 31.00 |
| Aubepine, see Anisic Aldehyde | | | | | | |
| **AMYL ACETATE,** pure, 5 gal cans.....gal. | 4.75 | 5.50 | 5.50 | 4.75 | 5.50 | 4.75 |
| Butyrate, 1 lb bot.....lb. | 1.70 | 1.75 | 1.75 | 1.70 | 1.90 | 1.70 |
| Butyrate, 5 lb bot.....lb. | ..... | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| Cinnamate, 5 lb bot.....lb. | 9.50 | 9.75 | 9.75 | 9.50 | 9.75 | 9.50 |
| Formate, 1 lb bot.....lb. | ..... | 1.90 | 1.90 | 1.90 | 1.90 | 1.90 |
| Formate, 5 lb bot.....lb. | ..... | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| Phenyl Acetate, 1 lb bot...lb. | 4.50 | 5.00 | 5.00 | 4.50 | 5.00 | 4.50 |
| Salicylate, 100 lb cbys.....lb. | 1.25 | 1.30 | 1.30 | 1.25 | 1.30 | 1.25 |
| Imported.....lb. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 2.25 |
| Anisic Aldehyde, 1 lb bot....lb. | 3.00 | 3.25 | 3.25 | 3.00 | 3.25 | 3.00 |
| Benzaldehyde, USP, 40 lb cbys ....lb. | ..... | ..... | ..... | ..... | ..... | ..... |
| 50 lb cbys.....lb. | 1.25 | 1.35 | 1.35 | 1.25 | 1.35 | 1.25 |
| FFC, 40 lb cbys.....lb. | 1.35 | 1.45 | 1.45 | 1.35 | 1.45 | 1.35 |
| Benzoic Ether, see Ethyl Benzoate..... | | | | | | |
| Benzophenone, 1 lb bot.....lb. | 4.50 | 5.00 | 5.00 | 4.50 | 5.00 | 4.50 |
| Benzyl Acetate, 100 lb cbys..lb. | .90 | 1.10 | 1.10 | .90 | 1.10 | .90 |
| Alcohol, 5 lb bot.....lb. | 1.25 | 1.35 | 1.35 | 1.25 | 1.35 | 1.25 |
| Benzoate, 5 lb bot.....lb. | 1.25 | 1.35 | 1.35 | 1.25 | 1.35 | 1.25 |
| **BENZYL BENZOATE**..... | 1.35 | 1.40 | 1.40 | 1.35 | 1.40 | 1.35 |
| Medicinal, FFC.....lb. | ..... | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| Buytrate, CP, 1 lb bot....lb. | 9.25 | 9.50 | 9.50 | 9.25 | 9.50 | 9.25 |
| Cinnamate, 1 lb bot.....lb. | 9.25 | 9.50 | 9.50 | 9.25 | 9.50 | 9.25 |
| Formate, 1 lb bot.....lb. | 3.15 | 3.25 | 3.25 | 3.15 | 3.25 | 3.15 |
| Propionate, 1 lb bot.....lb. | 3.60 | 3.75 | 3.75 | 3.60 | 3.75 | 3.60 |
| Succinate, 1 lb bot.....lb. | 5.25 | 5.50 | 5.50 | 5.25 | 5.50 | 5.25 |
| Valerate, 5 lb bot.....lb. | 3.00 | 3.25 | 3.25 | 3.00 | 3.25 | 3.00 |
| Bornyl Acetate, 1 lb bot....lb. | 2.90 | 3.00 | 3.00 | 2.90 | 3.25 | 2.90 |
| Bromstyrol, 25 lb cases....lb. | 4.10 | 4.25 | 4.25 | 4.10 | 5.00 | 4.10 |
| Butyl Anthranilate dom, 1 lb bot.....lb. | | | | | | |
| Butyric Ether, see Ethyl Butyrate..... | | | | | | |
| Cinnamic Acid, 5 lb cans....lb. | 3.25 | 3.50 | 3.50 | 3.25 | 3.50 | 3.25 |
| Alcohol liquid, 1 lb bot...lb. | 3.25 | 3.35 | 3.35 | 3.25 | 3.50 | 3.25 |
| Crystallizable.....lb. | 7.00 | 8.00 | 8.00 | 7.00 | 8.00 | 7.00 |
| Aldehyde.....lb. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 2.25 |
| Imported, 1 lb bot....lb. | 7.75 | 9.00 | 9.00 | 7.75 | 9.00 | 7.75 |
| Citronelyl Acetate, 1 lb bot..lb. | 7.75 | 8.00 | 8.00 | 7.75 | 8.00 | 7.75 |
| Coumarin, 25 lb cans.....lb. | 3.50 | 4.00 | 4.00 | 3.50 | 4.00 | 3.50 |
| **DECYL ALCOHOL**.....lb. | 25.00 | 28.00 | 28.00 | 25.00 | 28.00 | 25.00 |
| Diethyl Phthlate see Chemicals | | | | | | |
| Diphenyloxide, 25 lb tins....lb. | 1.00 | 1.15 | 1.15 | 1.00 | 1.15 | 1.00 |
| Diphenyl Methane.....lb. | 1.50 | 1.75 | 1.75 | 1.50 | 1.75 | 1.50 |
| Duodecyl Alcohol.....lb. | 20.00 | 22.00 | 22.00 | 20.00 | 22.00 | 20.00 |
| Ethyl Acetate, pure, 5 lb bot..lb. | .45 | .50 | .50 | .45 | .50 | .45 |
| Benzoate, 5 lb bot.....lb. | 1.50 | 1.75 | 1.75 | 1.50 | 1.75 | 1.50 |
| Ethyl Butyrate, 5 lb bot....lb. | 1.80 | 2.00 | 2.00 | 1.80 | 2.00 | 1.80 |
| Caproate, 1 lb bot.....lb. | 3.25 | 3.50 | 3.50 | 3.25 | 3.50 | 3.25 |
| Cinnamate, 1 lb bot.....lb. | 4.00 | 4.50 | 4.50 | 4.00 | 4.50 | 4.00 |
| Formate, 5 lb bot.....lb. | 1.00 | 1.25 | 1.25 | 1.00 | 1.25 | 1.00 |
| Methyl Paracresol, 1 lb bot .....lb. | 3.25 | 3.50 | 3.50 | 3.25 | 3.50 | 3.25 |
| Phenyl Acetate, 5 lb bot..lb. | 3.75 | 4.00 | 4.00 | 3.75 | 4.00 | 3.75 |
| Valerate, 5 lb bot.....lb. | ..... | 3.75 | 3.75 | 3.75 | 3.75 | 3.75 |
| Salicylate, 5 lb bot.....lb. | 1.95 | 2.00 | 2.00 | 1.95 | 2.10 | 1.95 |
| Formic Ether see Ethyl Formate | | | | | | |
| Geranyl Acetate, 1 lb bot....lb. | 3.20 | 3.25 | 3.25 | 3.20 | 3.25 | 3.20 |
| Butyrate, 1 lb bot.....lb. | 13.00 | 13.50 | 13.50 | 13.00 | 13.50 | 13.00 |
| Formate, 1 lb bot.....lb. | 12.00 | 12.50 | 12.50 | 12.00 | 12.50 | 12.00 |
| Glyco Ester.....lb. | .90 | 1.00 | 1.00 | .90 | 1.00 | .90 |
| Heliotropin, 100-10 lbs.....lb. | 1.65 | 1.75 | 1.75 | 1.65 | 1.75 | 1.65 |
| Imported.....lb. | 1.95 | 2.05 | 2.05 | 1.95 | 2.05 | 1.95 |
| Hydroxycitronellal, 1 lb.....lb. | 5.50 | 7.50 | 7.50 | 5.50 | 7.50 | 5.50 |
| Indol, CP, 1 oz bot.....oz. | 2.90 | 3.00 | 3.00 | 2.90 | 4.50 | 2.90 |
| **IONONE,** 1 lb bot 100%...lb. | 5.00 | 6.00 | 6.00 | 5.00 | 7.00 | 5.00 |
| Alpha.....lb. | 4.80 | 5.00 | 5.20 | 4.80 | 6.25 | 4.75 |
| Beta.....lb. | 5.70 | 5.75 | 5.75 | 5.70 | 7.25 | 5.50 |
| Methyl.....lb. | 5.75 | 6.00 | 6.00 | 5.75 | 7.25 | 5.75 |
| Iso Borneol.....lb. | 2.15 | 2.25 | 2.25 | 2.15 | 2.25 | 2.15 |
| Iso Bornyl Acetate.....lb. | 2.80 | 3.00 | 3.00 | 2.80 | 3.00 | 2.80 |
| Iso-Butyl Benzoate, 5 lb bot..lb. | 2.75 | 3.00 | 3.00 | 2.75 | 3.00 | 2.75 |
| Iso-Safrol, 1 lb bot imp.....lb. | 1.65 | 1.75 | 1.75 | 1.65 | 1.75 | 1.65 |
| Domestic, 5 lb bot.....lb. | 3.50 | 3.75 | 3.75 | 3.50 | 3.75 | 2.50 |
| Lynalyl Acetate, 1 lb bot....lb. | 3.25 | 4.25 | 4.25 | 3.25 | 4.50 | 3.25 |
| Benzoate, 1 lb bot.....lb. | 13.00 | 14.00 | 14.00 | 13.00 | 14.00 | 13.00 |
| Formate, 5 lb bot.....lb. | 10.50 | 12.00 | 12.00 | 10.50 | 12.00 | 10.50 |
| **METHYL ACETOPHENONE** .....lb. | 3.35 | 3.50 | 3.50 | 3.35 | 3.75 | 3.35 |
| Anthranilate, 1 lb bot.....lb. | 2.40 | 2.45 | 2.45 | 2.40 | 2.45 | 2.40 |
| Imported.....lb. | 2.70 | 2.75 | 2.75 | 2.70 | 2.75 | 2.70 |
| Anthranilic Acid.....lb. | 11.75 | 12.00 | 12.00 | 11.75 | 12.00 | 11.75 |
| Benzoate, 5 lb bot imp....lb. | 1.75 | 1.85 | 1.85 | 1.75 | 2.00 | 1.75 |
| Domestic, 5 lb bot.....lb. | 1.75 | 2.00 | 2.00 | 1.75 | 2.00 | 1.75 |
| Cinnamate, 1 lb bot.....lb. | 3.75 | 4.25 | 4.25 | 3.75 | 4.25 | 3.75 |
| Heptenone, 1 lb bot.....lb. | 8.50 | 9.00 | 9.00 | 8.50 | 9.00 | 8.50 |
| Paracresol, 1 lb bot .....lb. | 4.50 | 8.00 | 8.00 | 4.50 | 8.00 | 4.50 |
| Phenylacetate, 5 lb bot...lb. | 3.75 | 4.00 | 4.00 | 3.75 | 4.00 | 3.75 |
| Salicylate, USP, 500 lb dr..lb. | ..... | .40 | .40 | .40 | .40 | .40 |
| 50 lb cases.....lb. | ..... | .42 | .42 | .42 | .42 | .42 |
| Mirbane rect, 1,000 lb drs...lb. | .12 | .13 | .13 | .12 | .13 | .12 |

# MODERNITY

## NAEF

STYLES in perfumes change frequently and radically. Popular taste which yesterday desired one type of odor, to-day insists on a different one and to-morrow will demand something new. Consequently, the successful perfumer, even though he does not himself initiate new types, must follow the trend. ¶He can do so only by familiarizing himself thoroughly with the possibilities inherent in the best of the new perfume specialties, so that he can employ them effectively. ¶Mentioning only a few of the recent Naef creations, Cheiria, Chypranol, Doraflor, Florizia, Glycine, Jonquifleur and Polyone deserve the careful consideration of perfumers in search of modernity.

CHUIT-NAEF Geneva

UNGERER & CO. New York

## { Monthly Review }

total crop, 76.3. Raw juice, 23,179; 11.0. Fresh limes, 21,577; 10.2. Pickled limes, 263; .12 Lime juice cordial, 4,647; 2.2.

The exports of products of the lime industry during 1927 is recorded below: Concentrated lime juice, 106,971 gallons; value, £22,269. Raw lime juice, 173,848 gallons; £7,244. Lime-juice cordial, 845 gallons; £127. Fresh limes, 21,577 barrels; £15,931. Pickled limes, 263 barrels; £553. Essential oil (distilled), 31,346 lbs.; £36,049. Otto of limes (hand-pressed or ecuelled), 7,828 lbs.; £13,308. Total value, £95,481.

### Lemon Oil Declines

The Italian market for Lemon Oil has declined quite substantially in the last week or ten days due largely to the lessened demand for fruit and the fact that exporters have completed contracts they had entered for January/February/March shipment. Prices are being quoted spot at $4.40 per pound for the Italian and $3.90 per pound for domestic oil.

The basic situation remains unchanged, that is to say, the shortage of oil caused by the excessive demand for fruit and the damage done to the crop by the cold weather is unrelieved, consequently the technical position of the market is fundamentally strong and the weakness shown at present is due solely to temporary slowing down of demand.

Under the circumstances, consumers who have not yet covered their requirements, might be wise to give serious thought to doing so at least in part during the next ten days or two weeks. Later on, as the warm weather creats a greater demand the price will undoubtedly be higher again and the temporary weakness would seem the logical time to cover requirements.

### Orange Oil Weakens

Orange oil is in a similar position to that of Lemon oil. Prices are decidedly weak, Italian oil being quoted spot at about $5.65 and domestic at $6.05 per pound cold pressed. Considering past prices this would seem an ideal time to cover requirements as the advent of warm weather which may be expected any day now will undoubtedly stimulate demand to the point where considerably higher prices will prevail.

### Sicilian Citrus Oil Exports Increase

Foreign demand for Sicilian lemon and other essential oils continues to be limited, American importers purchasing only small quantities at the present high prices. Production by the machine process is increasing, although prices for the hand made oils continue to be higher than for the oils made either by Cannavo's or Vinci's machine method. In Palermo it is generally stated that in a comparatively short time the production of essential oils will be done entirely by the machine method. During January sales were made of the various Sicilian oils at the following prices per Sicilian pound (317.621 grams); bitter orange oil, 46.50 lire; sweet orange oil, 52.50 to 55 lire; bergamot, 58 to 62.50 lire; lemon (4 per cent.), 38 to 42 lire; and mandarin, 70 to 75 lire. (Lire in 1929—$0.0523 United States currency.)

Manufacturers of lemon oil (4 per cent.) have not shown any great inclination to release stocks with the hope of

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Musk Ambrette 1 lb cans...lb | 6.50 | 6.75 | 6.75 | 6.50 | 6.75 | 6.50 |
| Ketone 1 lb cans.....lb | 8.00 | 8.15 | 8.15 | 8.00 | 8.15 | 8.00 |
| Xylene 5 lb cans.....lb. | 2.25 | 2.35 | 2.35 | 2.25 | 2.35 | 2.25 |
| Nerolin 1 lb cans.....lb. | 1.35 | 1.40 | 1.40 | 1.35 | 1.50 | 1.35 |
| Octyl Alcohol 1 lb bot.....lb. | 30.00 | 32.00 | 32.00 | 30.00 | 32.00 | 30.00 |
| Oenanthic Ether lb bot.....lb. | 1.90 | 2.00 | 2.00 | 1.90 | 2.00 | 1.90 |
| Paracresol Methyl Ether...lb. | 6.50 | 6.75 | 6.75 | 6.50 | 6.75 | 6.50 |
| Paracresyl Acetate.....lb. | 5.50 | 5.75 | 5.75 | 5.50 | 5.75 | 5.50 |
| Para Cymene Refd 110 gal dr .....gal. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 2.25 |
| **PHENYLACETALDEHYDE** | | | | | | |
| 50% 1 lb bot.....lb. | 4.75 | 5.00 | 5.00 | 4.75 | 7.50 | 4.75 |
| Imported 50%.....lb. | 4.75 | 5.00 | 5.00 | 4.75 | 6.50 | 4.75 |
| 100%.....lb. | 8.00 | 8.25 | 8.25 | 8.00 | 8.25 | 8.00 |
| Phenylacetic Ac d 1 lb bot..lb. | 3.00 | 3.25 | 3.25 | 3.00 | 3.25 | 3.00 |
| Phenyl Diacetate 1 oz bot...oz. | 3.00 | 3.25 | 3.25 | 3.00 | 3.25 | 3.00 |
| 1 lb bot.....lb. | 8.00 | 10.00 | 10.00 | 8.00 | 10.00 | 8.00 |
| Imported.....lb. | 7.00 | 7.75 | 7.75 | 7.00 | 7.75 | 7.00 |
| Phenylethyl Alcohol 1 lb bot.lb. | 4.50 | 4.75 | 4.75 | 4.50 | 4.75 | 4.50 |
| Phenyl Ethyl Acetate.....lb. | 8.25 | 8.75 | 8.75 | 8.25 | 8.75 | 8.25 |
| Butyrate 1 lb bot.....lb. | 15.00 | 16.00 | 16.00 | 15.00 | 16.00 | 15.00 |
| Formate, 1 lb bot.....lb. | 19.00 | 21.00 | 21.00 | 19.00 | 21.00 | 19.00 |
| Propionate, 1 lb bot.....lb. | 16.00 | 18.00 | 18.00 | 16.00 | 18.00 | 16.00 |
| Valerate, 1 lb bot.....lb. | 19.00 | 29.00 | 20.00 | 19.00 | 20.00 | 19.00 |
| Phenylpropylalcohol, 1 lb bot .....lb. | 12.00 | 12.50 | 12.50 | 12.00 | 16.00 | 12.00 |
| Skatol, 1 oz bot.....lb. | 4.50 | 7.00 | 7.00 | 4.50 | 7.00 | 4.50 |
| Terpinyl Acetate, 25 lb cans..lb. | .75 | .80 | .80 | .75 | .80 | .75 |
| Imported, 25 lb cans..... | .85 | .90 | .90 | .85 | .90 | .85 |
| **TERPINEOL,** CP, 1000 lb drs .....lb. | .33 | .35 | .35 | .33 | .35 | .33 |
| 50 lb cans.....lb. | .37 | .39 | .39 | .37 | .39 | .37 |
| Absolute, 25 lb cans.....lb. | .48 | .50 | .50 | .48 | .50 | .48 |
| Imported, 25 lb cans...lb. | .58 | .60 | .60 | .58 | .60 | .58 |
| Vanillin, USP, 25 lb tins....lb. | ..... | 7.00 | 7.00 | 7.00 | 7.50 | 7.00 |
| 1 lb cans.....lb. | ..... | 7.15 | 7.15 | 7.15 | 7.70 | 7.15 |
| Second Hands.....lb. | ..... | 6.75 | 6.75 | 6.75 | 6.75 | 6.75 |
| Valerianic Ether see Ethyl Valerate..... | | | | | | |
| Yara Yara, 1 lb cans.....lb. | 1.50 | 1.60 | 1.60 | 1.50 | 1.60 | 1.50 |

## Essential Oils

| | | | | | |
|---|---|---|---|---|---|
| Almond Bitter, USP, 5 lb bot lb. | 2.70 | 2.80 | 2.80 | 2.70 | 2.80 | 2.70 |
| Bitter, ffPA, 5 lb bot.....lb. | 3.00 | 3.10 | 3.10 | 3.00 | 3.25 | 3.00 |
| Sweet, 56 lb cans.....lb. | .73 | .76 | .85 | .73 | .85 | .75 |
| Amber crude, 25 lb tins.....lb. | .33 | .35 | .35 | .33 | .35 | .33 |
| Rectified, 25 lb tins.....lb. | .52 | .55 | .55 | .52 | .55 | .52 |
| Angelica Root, 1 lb bot.....lb. | 21.00 | 23.00 | 24.00 | 21.00 | 28.50 | 16.00 |
| Anise Tech, 400 lb drums...lb. | .65 | .70 | .70 | .55 | .58 | .54 |
| USP, 60 lb cans.....lb. | .68 | .72 | .72 | .58 | .61 | .57 |
| Apricot Kernel, 50 lb cans...lb. | .42 | .44 | .46 | .42 | .50 | .44 |
| Bay, 25 lb tins N. F. V., 50.55% Phenol.....lb. | 2.30 | 2.50 | 3.00 | 2.30 | 3.00 | 1.90 |
| Terpeneless.....lb. | 5.80 | 6.00 | 6.00 | 5.80 | 6.00 | 5.80 |
| **BERGAMOT,** 25 lb coppers..lb. | 4.35 | 5.15 | 5.35 | 4.25 | 6.10 | 4.85 |
| Terpeneless.....lb. | 14.00 | 18.00 | 18.00 | 14.00 | 18.00 | 14.00 |
| Artificial, 25 lb cans.....lb. | 2.50 | 3.25 | 3.25 | 2.50 | 3.25 | 2.50 |
| Birch, Sweet, Northern, 25 lb tins.....lb. | 3.75 | 4.00 | 4.00 | 3.75 | 4.00 | 3.75 |
| Southern, 25 lb tins.....lb. | ..... | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 |
| Birch Tar, rect., 5 lb bot.....lb. | .50 | .55 | .55 | .50 | .55 | .50 |
| Crude, 50 lb tins.....lb. | .12 | .13 | .13 | .12 | .13 | .12 |
| Bois de Rose, tins..... | | | | | | |
| Brazillian.....lb. | 1.55 | 1.60 | 1.70 | 1.55 | 2.00 | 1.80 |
| Cayenne, tins.....lb. | 1.90 | 2.00 | 2.35 | 1.90 | 2.60 | 2.05 |
| Cade, 25 lb cans.....lb. | .25 | .27 | .27 | .25 | .27 | .25 |
| Cajuput, native, 50 lb tins..lb. | .70 | .75 | .75 | .70 | .75 | .70 |
| Calamus, 5 lb bot.....lb. | 3.40 | 3.50 | 3.50 | 3.40 | 3.50 | 3.40 |
| Camphor Sassa, 1000 lb drs..lb. | .21 | .22 | .22 | .14½ | .15½ | .14½ |
| White, 400 lb drs.....lb. | .19 | .22 | .22 | .10½ | .12½ | .10½ |
| Cans, 50 lbs.....lb. | .22 | .24 | .24 | .14 | .15 | .14 |
| **CANANGA,** Native 25 lb tins .....lb. | 2.90 | 3.15 | 3.25 | 2.90 | 3.50 | 3.00 |
| Rectified, 25 lb tins.....lb. | 3.40 | 3.50 | 3.50 | 3.40 | 4.00 | 3.40 |
| Caraway, USP.....lb. | 1.85 | 1.90 | 1.90 | 1.65 | 1.85 | 1.65 |
| Cardamon, NF, 1 lb bot.....lb. | 25.00 | 38.00 | 38.00 | 25.00 | 38.00 | 25.00 |
| Cascarilla, USP, 1 lb bot.....lb. | 75.00 | 90.00 | 90.00 | 50.00 | 64.00 | 50.00 |
| Cassia, 80 85%, 400 lb drs..lb. | ..... | Nom. | ..... | ..... | 1.45 | 1.30 |
| Redist, USP, 50 lb cans...lb. | 1.65 | 1.70 | 2.10 | 1.65 | 3.25 | 1.70 |
| Cedar Leaf, 50 lb tins.....lb. | 1.00 | 1.05 | 1.05 | .95 | 1.35 | .90 |
| Cedar Wood, light, 1000 lb drs .....lb. | .26 | .28 | .28 | .26 | .29 | .24 |
| Celery, 1 lb bot.....lb. | ..... | 7.75 | 7.75 | 7.75 | 8.50 | 7.25 |
| Chaulmoogra, USP 80 lb cases lb | ..... | 1.50 | 1.50 | 1.20 | 1.20 | 1.20 |
| Cinnamon Ceylon, 1 lb bot...lb. | 9.50 | 13.00 | 13.00 | 9.50 | 13.00 | 9.75 |
| Leaf, 5 lb bot.....lb. | 1.85 | 1.95 | 1.95 | 1.60 | 1.75 | 1.60 |
| **CITRONELLA** Ceylon, 1000 lb drs.....lb. | .46 | .47 | .48 | .44 | .56 | .33 |
| 50 lb tins.....lb. | .47 | .49 | .49 | .46 | .58 | .35 |
| Java, 400 lb drs.....lb. | .49 | .51 | .51 | .49 | .51 | .40 |
| 50 lb tins.....lb. | .52 | .54 | .54 | .52 | .54 | .43 |
| Cloves, USP, 50 lb cans.....lb. | 2.60 | 2.70 | 2.70 | 2.60 | 2.65 | 1.25 |
| 6 lb bot.....lb. | 2.80 | 2.90 | 2.90 | 2.80 | 2.75 | 1.35 |
| Copaiba.....lb. | ..... | .80 | .80 | .80 | .80 | .65 |
| Coriander, USP, 10 lb bots..lb. | 8.00 | 8.50 | 11.25 | 8.00 | 14.00 | 10.50 |
| Croton USP, 25 lb tins.....lb. | .90 | .95 | .95 | .90 | .95 | .90 |
| Cubebs, USP, 5 lb bot.....lb. | 2.90 | 3.00 | 3.00 | 2.90 | 3.45 | 2.90 |
| Cumin, 1 lb bot.....lb. | ..... | 3.75 | 3.75 | 3.75 | 3.75 | 3.75 |
| Dill, 25 lb cans.....lb. | 3.75 | 3.85 | 3.85 | 3.75 | 4.25 | 3.75 |
| Erigeron, 20 lb tins.....lb. | 1.80 | 1.90 | 1.90 | 1.80 | 2.50 | 1.80 |
| **EUCALPYTUS** Austl, USP, 56 lb cans, cases.....lb. | .54 | .55 | .60 | .54 | .60 | .59 |
| 500 lb drs.....lb. | .52 | .54 | .59 | .52 | .59 | .58 |

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keeping the price at its present high level or higher. The market for mandarin oil continues quiet, the demand from importers being almost entirely lacking and prices steady. Exports of these oils during December, 1928 and January, 1929 are shown in the following table:

| | *Orange Oil* | *Bergamot Oil* | *Lemon Oil* | *Mandarin Oil* |
|---|---|---|---|---|
| | *Kilos* | *Kilos* | *Kilos* | *Kilos* |
| Jan., 1929.. | 17,388 | 22,600 | 70,161 | 440 |
| Dec., 1928.. | 16,865 | 13,686 | 23,649 | 1,179 |

The quotations for the different essential oils per pound of 453.59 grams the latter part of March were 30 per cent. higher than in January as is evident from the following: Finest quality lemon oil—$4.40; finest quality orange oil —$5.55; finest quality bergamot oil—$4.89.

It will be noted that the weights mentioned last are in avoirdupois, while quotations covering weights in the earlier part of this report refer to Sicilian pounds of 317.621 grams. (Consul Howard K. Travers, Palermo.)

### Dispute in Sandalwood Oil

Sandalwood oil remains in a very tight position with prices maintained at present high levels. It is the opinion of the essential oil trade that still higher prices will be seen before long. Further advances of from 50c to $1.00 per pound are anticipated.

The interest in the Australian sandalwood oil and the increasing effort of interested parties to have this product admitted to the U. S. P. has brought some information on its production. There has also been started the discussion as to whether or not the Australian oil is as high in santalol content as is generally stated.

With reference to the production of Australian oil it is stated that the wood is a natural forest product and has not been cultivated. However, at present reforestation is being undertaken by the Government Forestry Department, but it is too early to obtain wood therefrom. Large areas of natural growth are still available and untouched. All supplies are controlled by the West Australian Government, which supplies the requirements of all the various oil distillers.

Cutting of wood is done all year round, and no variation is found in the yield of the oil from the wood.

Production of the oil has increased from 6,000 pounds in 1922, to 55,000 pounds in 1928, and the increase is to be further maintained.

The Australian oil is obtained from the santalum spicatum. The specifications of the oil are as follows:

Optical Rotation— −3° to −6°.

Specified Gravity—.960 to .973.

Solubility in 70% Alcohol—1 part in 6 parts Alcohol.

Santalol Content—90% to 95%.

The high percentage of santalol reported is disputed by quite a few well informed people. The claim is made that the santalol is determined by the test for total alcohols. This test, it is stated, is not at all sufficient as a definite for santalol. Any other alcohol that may be present will boost the quantity of santalol that this test will show, and while the actual santalol present may be very small, the test may, through the presence of other alcohols, give a high percentage of santalol when in fact it is not present. Many dealers in sandalwood oil are of the opinion that further study is necessary before a decision can be made to admit the Australian oil to the U. S. P.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Fennel, USP, 25 lb tins.....lb. | .80 | .90 | .85 | .80 | .85 | .80 |
| Geranium African, 25 lb tins..lb. | 4.75 | 4.85 | 4.85 | 3.85 | 4.25 | 3.00 |
| Bourbon, 28 lb tins.....lb. | 4.90 | 5.25 | 5.25 | 4.25 | 4.90 | 3.00 |
| Turkish, 28 lb tins.....lb. | 3.25 | 3.35 | 3.35 | 3.00 | 3.35 | 2.45 |
| Ginger, 1 lb bot.....lb. | 6.00 | 6.25 | 6.25 | 6.00 | 6.75 | 4.80 |
| Gingergrass, 28 lb tins.....lb. | 2.50 | 2.70 | 2.70 | 2.50 | 2.70 | 2.50 |
| Hemlock, 25 lb tins.....lb. | 1.05 | 1.10 | 1.10 | 1.05 | 1.10 | 1.00 |
| Juniper Berries, USP, 25 lb tins .....lb. | 2.05 | 2.10 | 2.15 | 2.05 | 3.75 | 2.10 |
| Wood, 50 lb tins.....lb. | .50 | .60 | .60 | .50 | .60 | .50 |
| **LAVENDER,** USP, 28 lb tins .....lb | 3.25 | 3.40 | 3.40 | 3.25 | 3.85 | 3.00 |
| Spike Spanish, 50 lb cans..lb. | .90 | .95 | .95 | .90 | 1.05 | .90 |
| Lemon Ital, 25 lb cans.....lb. | 4.40 | 5.05 | 5.75 | 4.35 | 4.85 | 2.30 |
| California 35 lb cbys....lb. | 3.90 | 4.05 | 4.65 | 3.90 | 4.35 | 1.85 |
| Lemongrass, native, 50 lb cans .....lb. | .81 | .83 | .83 | .81 | .95 | .81 |
| Limes, expressed, 25 lb tins..lb. | 22.00 | 23.00 | 23.00 | 20.00 | 25.00 | 9.25 |
| Distilled, 25 lb tins.....lb. | 8.00 | 8.50 | 8.50 | 7.75 | 8.50 | 6.00 |
| Linaloe Mex., 70 lb cases....lb. | 2.20 | 2.25 | 2.25 | 2.20 | 2.45 | 1.90 |
| Mace, distilled, 50 lb tins....lb | 1.75 | 1.80 | 1.80 | 1.75 | 1.85 | 1.60 |
| Mandarin, 25 lb cases.....lb. | 11.00 | 11.50 | 11.50 | 11.00 | 11.50 | 7.50 |
| Mirbane, ref Aromatic Chemicals..... | | | | | | |
| **MUSTARD,** USP, 1 lb bots.lb. | 9.50 | 10.00 | 10.00 | 9.50 | 10.00 | 9.50 |
| Artif, USP, 5 lb bot.....lb. | 1.60 | 1.70 | 1.70 | 1.60 | 2.00 | 1.60 |
| Neroli Bigarade, ¼ & ½ & 1 lb bot .....lb. | 95.00 | 125.00 | 140.00 | 75.00 | 140.00 | 75.00 |
| Petale, 1 lb bot.....lb. | 160.00 | 170.00 | 170.00 | 160.00 | 170.00 | 160.00 |
| Artificial, 1 lb bot.....lb. | 5.00 | 15.00 | 15.00 | 5.00 | 15.00 | 5.00 |
| Nutmeg, USP, 50 lb tins....lb | 1.75 | 1.80 | 1.80 | 1.75 | 1.80 | 1.60 |
| **ORANGE BITTER,** 25 lb tins .....lb | 5.75 | 6.00 | 6.75 | 5.00 | 8.75 | 2.70 |
| Sweet W Ind, 25 lb tins..lb | 5.50 | 5.75 | 6.50 | 4.95 | 8.75 | 2.60 |
| Italian, 25 lb cop.....lb. | 5.65 | 6.50 | 7.35 | 5.10 | 9.00 | 2.80 |
| American, Cold pressed 25 lb tins.....lb. | ..... | 6.05 | 7.40 | 4.90 | 8.75 | 3.50 |
| Distilled, 25 lb tins.....lb. | ..... | 4.50 | 5.25 | 4.50 | 7.75 | 2.20 |
| Spanish, 25 lb tins.....lb. | 6.25 | 6.40 | 7.15 | 5.25 | 8.75 | 3.00 |
| Oil Orris, concrete.....oz. | 6.00 | 6.25 | 6.25 | 2.50 | 4.90 | 2.50 |
| Origanum, 50 lb cans tech...lb. | .28 | .30 | .30 | .28 | .30 | .28 |
| Parsley, 1 lb bot.....lb. | 9.00 | 9.25 | 9.25 | 8.00 | 8.25 | 6.50 |
| Patchouli, 5 lb bot.....lb. | 6.75 | 7.00 | 7.00 | 6.75 | 13.00 | 7.25 |
| Pennyroyal, dom, 25 lb tins..lb. | 1.55 | 2.10 | 2.10 | 1.55 | 1.90 | 1.55 |
| Imported, 25 lb tins.....lb. | ..... | 1.20 | 1.20 | 1.20 | 1.55 | 1.20 |
| Peppermint, nat. 60 lb cases lb. | 2.85 | 3.10 | 3.30 | 2.85 | 3.55 | 3.10 |
| Redis, USP, 60 lb cs.....lb. | 3.15 | 3.30 | 3.55 | 3.15 | 3.65 | 3.40 |
| Petit Grain S A., 25 lb tins..lb. | 1.90 | 2.00 | 2.00 | 1.90 | 2.10 | 1.50 |
| French, 1 lb bot.....lb. | 6.25 | 6.50 | 6.50 | 6.25 | 6.50 | 6.25 |
| Italian, 25 lb tins.....lb. | 2.20 | 2.30 | 2.30 | 2.20 | 2.30 | 2.20 |
| Pimento, 25 lb tins.....lb. | 2.50 | 2.75 | 2.75 | 2.25 | 3.25 | 2.55 |
| Pineedle Siberian, cans.....lb. | .60 | .65 | .65 | .60 | .85 | .65 |
| Pinus, Sylvestris, 25 lb tins..lb. | 1.90 | 2.00 | 2.00 | 1.90 | 2.00 | 1.90 |
| Pumilio, USP, 25 lb tins..lb. | 2.85 | 2.95 | 2.95 | 2.85 | 2.95 | 2.85 |
| Rose Fr, 8, 16, & 32 oz pkgs..lb. | 14.00 | 17.00 | 17.00 | 12.00 | 15.00 | 12.00 |
| Bulg, 8, 10 & 32 oz pkgs...lb. | 13.00 | 13.50 | 13.50 | 11.50 | 13.00 | 10.25 |
| Rosemary, USP, 27½ lb tins..lb. | ..... | .56 | .56 | .47½ | .56 | .47½ |
| 1000 lb drums.....lb. | ..... | .50 | .50 | .42½ | .45 | .42½ |
| Tech, 25½ lb tins.....lb. | ..... | .40 | .40 | .40 | .34 | .34 |
| Rue, 1 lb bot.....lb. | 3.15 | 3.25 | 3.25 | 3.15 | 3.25 | 3.15 |
| **SANDALWOOD,** E Ind, USP, 100 lb case.....lb. | 8.50 | 9.00 | 9.00 | 7.45 | 7.50 | 7.05 |
| W Indian (Amayris), 25 lb tins.....lb. | 2.25 | 2.35 | 2.35 | 2.25 | 2.65 | 2.30 |
| Sassafras, USP, 50 lb cans...lb. | .78 | .80 | .80 | .78 | .85 | .75 |
| Artificial, 1000 lb drs, 60 lb cans.....lb. | .34 | .38 | .38 | .26 | .28 | .26 |
| Safrol, cans.....lb | .41 | .42 | .42 | .28 | .29 | .28 |
| Savin, 50 lb tins.....lb | 1.65 | 1.80 | 1.90 | 1.65 | 1.90 | 1.70 |
| **SPEARMINT,** USP, 50 lb tins .....lb | 4.05 | 4.25 | 4.40 | 4.05 | 4.55 | 4.10 |
| Spruce, 50 lb tins.....lb | 1.05 | 1.10 | 1.10 | 1.05 | 1.10 | 1.00 |
| Tansy, American, 25 lb tins..lb. | 3.75 | 4.00 | 4.00 | 3.75 | 4.50 | 3.75 |
| Tar, 50 gal bbls.....lb. | .25 | .30 | .30 | .25 | .30 | .25 |
| USP, 50 gal bbls.....lb. | .75 | 1.50 | 1.50 | .75 | 1.50 | .75 |
| Thyme, red, NF, 25 lb tins..lb. | .78 | .80 | .90 | .78 | .90 | .80 |
| White, NF, 25 lb tins.....lb. | .83 | .85 | .90 | .83 | .90 | .85 |
| Tech, 110 lb drums.....lb. | .60 | .70 | .70 | .60 | .70 | .60 |
| Turpentine, USP, rect cbys..lb. | .27 | .30 | .30 | .27 | .30 | .27 |
| Vetivert Bourbon, 10 bot....lb. | 6.25 | 6.50 | 6.50 | 6.25 | 6.75 | 5.85 |
| Indian, 1 lb bot.....lb. | 25.00 | 38.00 | 38.00 | 25.00 | 38.00 | 25.00 |
| Java, 1 lb bot.....lb. | 15.00 | 16.00 | 16.00 | 15.00 | 16.00 | 15.00 |
| Wine, heavy, 1 lb bot.....lb. | 1.65 | 1.75 | 1.75 | 1.65 | 1.75 | 1.65 |
| **WINTERGREEN** Gaultheria, true, 25 lb tin.....lb. | 8.00 | 10.00 | 10.00 | 8.00 | 10.00 | 8.00 |
| Southern, 25 lb tins....lb. | 3.75 | 4.00 | 4.00 | 3.75 | 4.00 | 3.75 |
| Synthetic see Methyl salicylate..... | | | | | | |
| Wormwood, dom, 25 lb tins..lb. | 30.00 | 34.00 | 35.00 | 30.00 | 35.00 | 14.00 |
| Wormseed, Balt, 25 lb tins...lb. | 1.80 | 1.90 | 1.90 | 1.80 | 3.45 | 1.90 |
| Ylang Ylang Bourbon, 10 lb tins No. 1.....lb. | 9.50 | 9.75 | 9.75 | 9.50 | 10.50 | 8.50 |
| 10 lb tins No. 2.....lb. | 8.25 | 8.50 | 8.50 | 8.25 | 8.50 | 6.75 |
| Manila, 1 lb bot.....lb. | 30.00 | 40.00 | 40.00 | 30.00 | 32.00 | 30.00 |

## Oleoresins

| | | | | | | |
|---|---|---|---|---|---|---|
| Aspidum, USP, bot and tins..lb. | ..... | 1.25 | 1.45 | 1.25 | 2.10 | 1.50 |
| Capsicum, USP, bot and tins.lb. | 3.50 | 4.25 | 4.25 | 3.50 | 4.25 | 3.50 |
| Cubeb, USP, bot and tins....lb. | 3.00 | 3.25 | 3.25 | 3.00 | 3.25 | 3.00 |
| Ginger bot and tins.....lb. | 2.85 | 3.35 | 3.35 | 2.85 | 3.35 | 2.25 |
| Malefern see Aspidum..... | | | | | | |

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---

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## { Monthly Review }

### London's Supply of Annatto

According to a report from the Acting Secretary for Agriculture of the Federated Malay States, a consignment of about 10 cwts of annatto was sent to London as a trial shipment, and was sold with difficulty at 1½d per pound, a price which is insufficient to cover cost of collection of the seed.

The supplies of annatto in London appear to be in excess of the demand, consequently the prices now being realized are not very remunerative.

### Drugs From Egypt Increase

Exports to the United States during 1928 of the principal Egyptian gums, waxes, and crude drugs produced and collected in Egypt showed large increases, as will be noted in the following tabulation:

| | *1927* | | *1928* | |
|---|---|---|---|---|
| | *Pounds* | *Value* | *Pounds* | *Value* |
| Beeswax | 110,000 | $43,000 | 193,000 | $71,400 |
| Colocynth pulp | 22,600 | 6,300 | 120,000 | 37,000 |
| Gum arabic | 4,652,000 | 287,000 | 9,200,000 | 580,000 |
| Henna | 104,000 | 7,300 | 198,000 | 16,000 |
| Senna | 1,111,600 | 71,000 | 1,171,750 | 85,550 |

It may be said that this trade is in the hands of not more than five or six important exporters. Formerly these products were shipped to London and reshipped from there to the United States; it is now in most cases shipped direct. (Vice Consul J. L. Brent, Cairo.)

### France Supplies More Drugs

Crude drugs imported from France through the port of Marseille showed a very material increase during 1928 as shown by the following figures:

| | 1927 | | 1928 | |
|---|---|---|---|---|
| | *Pounds* | *Value* | *Pounds* | *Value* |
| Gentian | 394,247 | $24,458 | 541,768 | $35,493 |
| Lavender flowers | 47,844 | 13,396 | 30,480 | 8,364 |
| Licorice extract | 103,165 | 17,374 | 123,716 | 17,517 |
| Rose leaves | 58,387 | 13,455 | 96,934 | 29,036 |
| Other | 155,058 | 10,086 | 583,654 | 37,020 |
| Henna leaves | 334,313 | 25,767 | 399,409 | 27,125 |
| Gums and resins | 180,974 | 28,163 | 403,176 | 67,995 |
| Psyllium | 241,898 | 36,784 | 535,241 | 70,392 |
| Coriander seed (unground) | 155,043 | 11,729 | 251,481 | 17,665 |
| Bay leaves | 369,792 | 14,903 | 427,263 | 16,046 |
| Marjoram leaves | 144,000 | 24,462 | 95,598 | 12,046 |
| Thyme leaves | 319,688 | 15,414 | 311,517 | 19,317 |
| Fennel seeds | 139,068 | 11,938 | 68,753 | 7,865 |
| | 2,643,477 | 247,929 | 3,868,990 | 365,881 |

### Arabia Sends More Drugs

Exports of drugs, gums, waxes, and perfume materials from Arabia to the United States during 1928 were valued at $66,358 against $69,177 during 1927. The quantity and value of these products is shown in the following table:

| | *1927* | | *1928* | |
|---|---|---|---|---|
| | *Pounds* | *Value* | *Pounds* | *Value* |
| Beeswax | 148,400 | $42,300 | 136,800 | $44,600 |
| Aloes | 4,830 | 910 | 11,780 | 1,900 |
| Asafoetida | ..... | ..... | 3,880 | 650 |
| Gum myrrh | 58,170 | 9,000 | 27,320 | 7,240 |
| Ambergris (ounces) | 244 | 2,624 (ounces) | 281 | 3,866 |
| Civet | 8,065 | 14,343 | 4,070 | 8,102 |
| Total | | 69,177 | | 66,358 |

Insect flowers are experiencing the seasonal activity with supplies sufficient to meet the demand. No change in price has occurred.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Orris, bot & tins, lb. | 15.00 | 18.00 | 18.00 | 15.00 | 18.00 | 15.00 |
| Pepper, black, USP, bot & tin, lb. | ..... | 9.50 | 9.50 | 9.50 | ..... | ..... |
| Vanilla, bot & tins, lb. | 8.00 | 8.75 | 8.75 | 8.00 | 8.75 | 8.00 |

## Perfumer's Sundries

| | | | | | |
|---|---|---|---|---|---|
| Almond Meal, 25 lb cans, lb. | .20 | .21 | .21 | .20 | .21 | .20 |
| Amber liquid, 400 lb drs, lb. | 2.20 | 2.30 | 2.30 | 2.20 | 2.30 | 2.20 |
| Ambergris, Black, boxes, oz. | 14.00 | 15.00 | 15.00 | 14.00 | 15.00 | 14.00 |
| Gray boxes, oz. | 32.00 | 36.00 | 36.00 | 32.00 | 36.00 | 32.00 |
| **BALSAM COPAIBA** Para, 80 lb cases, lb. | ..... | .33½ | .34 | .30 | .49 | .32 |
| South American, USP, 80 lb cases, lb. | ..... | .37 | .37 | .33 | .52 | .35 |
| Peru, 120 lb cases, lb. | 2.00 | 2.00 | 2.05 | 1.75 | 1.80 | 1.65 |
| Tolu, 90 lb cases, lb. | 1.25 | 1.30 | 1.30 | 1.15 | 1.20 | .95 |
| Benzoin Gum, Siam, boxes, lb. | 1.20 | 1.30 | 1.30 | 1.20 | 1.30 | 1.20 |
| Castoreum, 1 lb bot, lb. | 9.50 | 10.00 | 10.00 | 9.50 | 10.00 | 9.50 |
| Chalk, Precip, 1 gt 175 bbls, lb. | .04½ | .05 | .05 | .04½ | .05 | .04½ |
| Cherry Laurel Water, 24 ltr cby, lb. | 4.10 | 4.60 | 4.60 | 4.10 | 5.60 | 4.10 |
| Civet, Abyssin, horns, oz. | 2.10 | 3.00 | 3.00 | 2.10 | 3.00 | 2.10 |
| Labdanum, 5 lb bot, lb. | 5.50 | 6.00 | 6.00 | 5.50 | 6.00 | 5.50 |
| Lanolin, hydrous, 350 lb bbls, lb. | .15 | .16 | .16 | .15 | .16 | .15 |
| Anhydrous, 350 lb bbls, lb. | .16 | .17 | .17 | .16 | .17 | .16 |
| Musk Pods Cabardine, tins, lb. | ..... | ..... | ..... | ..... | ..... | ..... |
| Musk Tonquin, tins, Pods, oz. | 24.00 | 26.00 | 26.00 | 24.00 | 26.00 | 24.00 |
| Grains Cabardine, tins, oz. | ..... | ..... | ..... | ..... | ..... | ..... |
| Tonquin, tins, Grained, oz. | 28.00 | 34.00 | 34.00 | 28.00 | 34.00 | 28.00 |
| Synthetic See Aromatic Chemical | | | | | | |
| **PETROLATUM,** snow white, 350 lb bbls, lb. | .12½ | .13½ | .13½ | .12½ | .13½ | .12½ |
| Light Amber, 350 lb bbls, lb. | .12½ | .13 | .13 | .12½ | .13 | .12½ |
| Rice Starch, 140 lb bags, lb. | .09 | .10 | .10 | .09 | .10 | .09 |
| Rose Water, 24 ltr cbys, cby. | 5.00 | 5.50 | 5.50 | 5.00 | 5.50 | 5.00 |
| Sandalwood, pwd bags, lb. | .22½ | .40 | .40 | .22½ | .40 | .22½ |
| Saponin, 5 lb tins, lb. | 1.15 | 1.30 | 1.30 | 1.15 | 1.30 | 1.15 |
| Talc, Italian, 220 lb bags, ton. | 60.00 | 80.00 | 80.00 | 60.00 | 80.00 | 60.00 |
| French, 220 lb bags, ton. | 40.00 | 45.00 | 45.00 | 40.00 | 45.00 | 40.00 |
| Aconite Root, USP, bags, lb. | .20 | .21 | .20 | .21 | .27 | .19 |
| Agar Agar, domestic, No. 1, 200 lb, lb. | 1.40 | 1.45 | 1.45 | 1.40 | 1.40 | .96 |
| Almonds Meal, lb. | .15 | .30 | .30 | .15 | .30 | .15 |
| Aletris Root, bags, lb. | .36 | .37 | .38 | .36 | .42 | .36 |
| Alkanet Root, bags, lb | .12 | .13 | .13 | .11 | .12 | .10 |

## Drugs and Spices

| | | | | | |
|---|---|---|---|---|---|
| **ALOES,** Cape, 400 lb cases, lb. | .15 | .16 | .18 | .16 | .18 | .09½ |
| Curacao, 100 lb cases, lb. | .19 | .20 | .20 | .19 | .20 | .12 |
| Socotrine, Whole, 300 lb cs lb. | .45 | .50 | .50 | .45 | .45 | .35 |
| Althea Root, bags, lb. | .20 | .22 | .22 | .20 | .22 | .20 |
| Cut cases, lb. | .33 | .40 | .40 | .33 | .40 | .33 |
| Angelica Root, bags, lb. | .26 | .27 | .28 | .26 | .25 | .18 |
| Angostura Bark, bags, lb. | .25 | .26 | .26 | .19 | .18 | .18 |
| Anise Star case, lb. | .14 | .15 | .19 | .14 | .26½ | .14 |
| Spanish, bags, lb. | .17½ | .18½ | .19 | .17½ | .20 | .13 |
| **ARABIC GUM,** White, No. 1, 100 lb bags, lb. | .25 | .27 | .27½ | .22 | .27½ | .22 |
| Seconds, 200 lb bags, lb. | .22 | .24 | .24 | .16 | .21 | .16 |
| Sorts, Amber, 220 lb bags, lb. | .15 | .16 | .16 | .11 | .11½ | .10½ |
| Powd, USP, 300 lb bbls, lb. | .20 | .22 | .25 | .17½ | .21 | .17½ |
| Areca Nuts, 100 lb bbls, lb. | .10 | .11 | .11 | .10 | .12½ | .10 |
| Powd, 100 lb bbls, lb. | .14 | .15 | .15 | .14 | .21 | .15 |
| Arnica Flowers, bales, lb. | .90 | .95 | 1.00 | .80 | 1.50 | .95 |
| Root, bags, lb. | .35 | .36 | .36 | .35 | .45 | .35 |
| Arrowroot, St. Vincent, powd bbls, lb. | .10 | .10½ | .10½ | .10 | .10½ | .10 |
| Asafoetida, 250 lb cases, lb. | .23 | .26 | .28 | .23 | .31 | .25 |
| Powd, 50 lb boxes, lb. | .50 | .54 | .54 | .50 | .68 | .50 |
| Balm Gilead Buds, bags, lb. | .35 | .40 | .40 | .35 | .40 | .31 |
| Balmony Herbs, bales, lb. | .23 | .25 | .25 | .18 | .23 | .18 |
| Barberry Bark, of root, bags lb. | .19 | .20 | .20 | .19 | .32 | .19 |
| Bayberry Bark, bales, lb. | .11 | .12 | .13 | .11 | .18 | .12 |
| Wax bbls, lb. | .29 | .32 | .32 | .29 | .32 | .29 |
| **BELLADONNA LEAVES,** bales, lb. | .18 | .20 | .20 | .18 | .23 | .17 |
| Root, bags, lb. | .20 | .21 | .21 | .20 | .21 | .20 |
| Bees Wax, White, cases, lb. | .55 | .60 | .60 | .55 | .60 | .55 |
| Yellow refined cases, lb. | .41 | .42 | .42 | .41 | .42 | .41 |
| Berberis Aquafolium Root, bags, lb. | .11 | .12 | .12 | .10 | .13 | .10 |
| Beth Root, bags, lb. | .17 | .18 | .18 | .17 | .20 | .17 |
| Black Indian Hemp Root, 100 lb bags, lb. | .18 | .19 | .19 | .18 | .20 | .18 |
| Blood Root, bags, lb. | .18 | .18½ | .18½ | .17½ | .35 | .21 |
| Blueflag Root, bags, lb. | .19 | .20 | .20 | .19 | .27 | .17 |
| Boldo Leaves, bales, lb. | .15 | .17 | .17 | .15 | .17 | .15 |
| Boneset Herb, bales, lb. | .11 | .12 | .12 | .10 | .10 | .07½ |
| Borage Flowers, bales, lb. | .15 | .16 | .15 | .14½ | .17 | .14½ |
| Broomtop Herb Cut, bales, lb. | .10 | .11 | .11 | .10 | .11 | .10 |
| Bryonia Root, bags, lb. | .11 | .12 | .12 | .11 | .12 | .10½ |
| **BUCHU LEAVES** Short, 250 lb. bales, lb. | .38 | .39 | .40 | .38 | .55 | .42 |
| Long bales, lb. | .75 | .80 | .80 | .75 | .80 | .75 |
| Buckbean Leaves, bales, lb. | .09 | .10 | .10 | .09 | .15 | .13 |
| Buckthorn Bark, bags, lb. | .05 | .05½ | .05½ | .05 | .05½ | .05 |
| Berries, bags, lb. | .45 | .50 | .50 | .45 | .50 | .45 |
| Burdock Root, bags, lb. | .13 | .14 | .17 | .13 | .17 | .11 |
| Seed bags, lb. | .65 | ..... | .65 | .65 | ... | .65 |
| Burgundy Pitch, 110 stand gross for net, lb. | .08 | .09 | .09 | .08 | .09 | .08 |
| Imported, lb. | .12 | .13 | .13 | .12 | .13 | .12 |
| Calabar Beans, bags, lb | .52 | .26 | .26 | .22 | .27 | .22 |

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Belladonna Root
Buchu Leaves
Chamomile Flowers
Dandelion Root
Digitalis Leaves
Doggrass Root
Fennel Seed
Foenugreek Seed
Fumigating Pastilles
Gentian Root
Henbane Leaves
Henna Leaves
Insect Flowers
Juniper Berries
Lavender Flowers
Licorice Cuttings
Licorice Root 1 lb. & 5 lb. bundles
Orris Root, Florentine
Olive Oil, Italian
Quassia
Rhubarb Root
Sage Leaves
Soap Castile
Soap Bark, Cut
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# Drugs and Spices

## { *Monthly Review* }

### Spain Sends Less Drugs

Exports from Spain to the United States of crude drugs, essential oils, castile soap, and allied products for 1928 showed a downward tendency. The total decrease in value of $173,000 was principally brought about by greatly reduced shipments of ergot of rye from Vigo. Eighty to ninety per cent. of Spanish licorice root and extract exported to the United States originated in Tarragona. Madrid accounted for the greater share of the castile soap exports, whereas the essential oil exports were more evenly divided, Malaga accounting for a little over 20 per cent. Cochineal is the only item worth mentioning coming from Las Palmas, Canary Islands, and this declined to a low figure in 1928. Among the pricipal Spanish essential oils are spike, origanum, pennyroyal, thyme, rue, aspic, eucalyptus, juniper wood tar, orange, sweet fennel, neroli, majoram, labdanum, lavender, rosemary, tangerine. The following table shows the export value of the products under discussion for the last two years:

| *Commodity* | *1927* | *1928* |
|---|---|---|
| Cochineal | $30,000 | $13,000 |
| Ergot | 168,000 | 25,000 |
| Licorice paste | 295,000 | 299,000 |
| Essential oils | 236,000 | 198,000 |
| Castile soap | 182,000 | 210,000 |
| Saffron | 59,000 | 52,000 |
| Total | $970,000 | $797,000 |

### Brazil Importing Crude Drugs

Detailed statistics, showing Brazil's imports of crude drug botanicals by countries of origin, are not available. However, the volume and value of the imports of "leaves, flowers, barks, roots, herbs, stems, bulbs, and similar substances, for medicinal purposes and dyeing", during the most recent years for which figures are available, are shown in the following table, which was compiled by the Brazilian Bureau of Commercial Statistics:

| *Year* | *Metric Tons* | *Milreis* |
|---|---|---|
| 1919 | 1,683 | 1,883,561 |
| 1920 | 1,366 | 1,880,072 |
| 1921 | 545 | 1,053,091 |
| 1922 | 456 | 1,338,065 |
| 1923 | 488 | 1,631,696 |

(The value of the milreis in 1919 was $0.2674; in 1920, $0.2251; in 1921, $0.1312; in 1922, $0.1295; in 1923, $0.1023 in United States currency).

The following medicinal plants are imported by Brazil: Saffron, bastard; safflower, or carthamus (flowers); Spanish or Asiatic (stigmas); rosemary, (leaves and flowers); lavender, aspic, (flowers); kousso; hops; moss; Corsica, Irish, Iceland or caragaheen; canary weed; mallow (leaves and flowers); mace or nutmeg flowers; poppy, white, black or red (flower).

Exports from the United States of drugs, herbs, leaves, and roots to Brazil for the past five years averaged about $6,000 annually. (Consul General A. Gaulin, Rio de Janeiro).

---

Chamomile Flowers remain unchanged in price, very little demand existing. Slowness will be the rule in this commodity between the present and coming of the new crop in August and September.

| | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|
| Calamus Root, blchd cases..lb. | .45 | .47 | .52 | .45 | .50 | .35 |
| Unbleached, bags.....lb. | .06½ | .07 | .07 | .06½ | .07 | .06½ |
| Calendula Petals, imp bales..lb. | 1.40 | 1.45 | 1.50 | 1.40 | 1.75 | .85 |
| Calisaya Bark, bales.....lb. | .21 | .22 | .22 | .21 | .23 | .20 |
| Powdered, bbls.....lb. | .26 | .27 | .27 | .26 | .32 | .18 |
| Canary Seed, South America, bags.....lb. | .06¾ | .07 | .07½ | .05 | .05½ | .04½ |
| Dutch, bags.....lb. | .05¾ | .06¼ | .06¾ | .05¾ | .06¾ | .05¾ |
| Candelilla Wax, bags.....lb. | .27 | .28 | .28 | .27 | .28 | .27 |
| Cannella Alba Bark, bales...lb. | .30 | .31 | .31 | .28 | .32 | .28 |
| Cannabis, U.S.P.....lb | .22 | .27 | .33 | .22 | ..... | ..... |
| Cantharides, Chinese, cases..lb. | .50 | .55 | .55 | .50 | .72 | .50 |
| Powdered, boxes.....lb. | .70 | .75 | .80 | .70 | .88 | .75 |
| Russian, cases.....lb. | .54 | .55 | .55 | .54 | .70 | .54 |
| Powdered, boxes.....lb. | .70 | .75 | .75 | .70 | .80 | .68 |
| Caraway Seed, African, bags.....lb. | .05 | .06 | .06 | .05 | .12 | .05 |
| Dutch, 11 lb bags.....lb. | .10¼ | .11 | .11 | .09¾ | .12 | .09½ |
| Cardamon bleached, cases...lb. | 1.60 | 1.70 | 1.75 | 1.60 | 2.00 | 1.50 |
| Decorticated, cases.....lb. | 1.45 | 1.55 | 1.60 | 1.45 | 1.60 | 1.25 |
| Cascara Amarga, 150 lb bbls..lb. | Nom. | ..... | ..... | ..... | .90 | .90 |
| So called bales.....lb. | .60 | .85 | .85 | .60 | .85 | .60 |
| **CASCARA SAGRADA,** 1926 bark.....lb. | .15 | .16 | .16 | .15 | .16 | .15 |
| 1927 bark.....lb. | .14 | .15 | .15 | .14 | .15 | .14 |
| 1928 bark .....lb. | .13½ | .14½ | .14½ | .13 | .14 | .13 |
| Cascarilla Bark, quills, bales.lb. | .90 | 1.00 | 1.00 | .90 | 1.00 | .90 |
| Siftings, bbls.....lb. | .65 | ..... | .65 | .65 | .65 | .65 |
| Cassia Batavia No. 1 bbls....lb. | .13½ | .13½ | .15 | .13½ | .16 | .13½ |
| Shortstick, bales.....lb. | .11¾ | .12 | .12½ | .11 | .13 | .11 |
| Batavia No. 3, bales.....lb. | .09½ | .10 | .11 | .09½ | .11 | .09½ |
| China Select Rolls, cases..lb. | .08½ | .08¾ | .09 | .08½ | .13½ | .09 |
| Broken, bales.....lb. | .09½ | .10 | .10 | .09½ | .10 | .08½ |
| Saigon, thin.....lb. | .30 | .31 | .39 | .28 | .39 | .22 |
| Buds, cases.....lb. | .16½ | .17 | .20 | .16½ | .19 | .18½ |
| Fistula, baskets.....lb. | .11 | .13 | .13 | .11 | .24 | .11 |
| Catnip, Herb, bales.....lb. | .19 | .20 | .23 | .18 | .23 | .19 |
| Celery Seed, bales.....lb. | .18 | .18½ | .19 | .17 | .21 | .19 |
| Ceresin Wax, White, bags...lb. | .15 | .20 | .20 | .15 | .20 | .15 |
| Yellow 200 lb. bags.....lb. | .11 | .14 | .14 | .11 | .14 | .11 |
| Imp. 100 lb. bags.....lb. | .25 | .38 | .38 | .25 | .38 | .25 |
| **CHAMOMILE FLOWERS** Roman, bales.....lb. | .45 | .50 | .50 | .45 | .50 | .18 |
| Hungarian, cases.....lb. | .24 | .25 | .26 | .23 | .24 | .15 |
| Charcoal Willow, powd, bbls.lb. | .06 | .06½ | .06½ | .06 | .06½ | .06 |
| Wood, powd, bbls.....lb. | .04 | .05 | .05 | .04 | .05 | .04 |
| Chestnut Bark.....b. | .07 | .08 | .08 | .07 | ..... | ..... |
| Leaves bales.....lb. | .05 | .05½ | .05½ | .05 | .06½ | .05 |
| Chicle Gum, lb bbls.....lb. | .58 | .75 | .75 | .58 | .75 | .58 |
| Chiretta, bales.....lb. | .28 | .30 | .30 | .28 | .30 | .25 |
| Cinnamon, Ceylon, No. 1, bales.....lb. | .47 | .48 | .62 | .47 | .62 | .60 |
| No. 2 bales bend.....lb. | .45 | .46 | .51 | .45 | .61 | .55 |
| No. 3 bales.....lb. | .55½ | .56 | .56 | .55½ | .56 | .55½ |
| Clover Tops, Red, bags...lb. | .13 | .14 | .14 | .11 | .12 | .10 |
| Cloves Zanzibar, 135 lb bbl...lb. | .36½ | .37 | .38 | .35 | .38 | .18 |
| Cochineal, Black.....lb. | .69 | ..... | .69 | .69 | .69 | .69 |
| Silver.....lb. | .85 | ..... | .85 | .85 | .85 | .85 |
| Cohosh Root, Black, bags....lb. | .07½ | .08½ | .09 | .07½ | .09 | .07 |
| Blue, bags.....lb. | .11 | .12 | .12 | .11 | .12 | .09 |
| Colchicum Root, bags.....lb. | .08 | .09 | .09 | .07 | .07 | .06 |
| Seed, bags.....lb. | .80 | .85 | .85 | .65 | .70 | .25 |
| **COLUMBO ROOT,** bags...lb. | .15 | .16 | .20 | .15 | .20 | .05 |
| Colocynth Pulp, bales.....lb. | .35 | .38 | .45 | .35 | .110 | .42 |
| Coltsfoot Leaves, bags.....lb. | .08 | .09 | .09 | .08 | .12 | .08 |
| Comfrey Root, bags.....lb. | .13 | ..... | .14 | .13 | .14 | .14 |
| Condurango Bark, bags.....lb. | .15 | .16 | .17 | .15 | .16 | .13 |
| Coriander Seed, Morocco, bags.....lb. | .04 | .04½ | .06 | .04 | .13 | .05 |
| Bleached, bags.....lb. | .11 | .11½ | .11½ | .11 | .19 | .11 |
| Corn Silk, bales.....lb. | .05½ | .06½ | .06½ | .05½ | .06½ | .05 |
| Cotton Root Bark, bales....lb. | ..... | .12 | .13 | .12 | .15 | .12 |
| Cowhage, 1 oz tins.....lb. | 1.00 | ..... | 1.00 | 1.00 | 1.00 | .95 |
| Cramp Bark so called bales..lb. | .06½ | .07 | .08 | .06 | .08 | .05½ |
| True, bags.....lb. | .35 | .38 | .48 | .35 | .55 | .34 |
| Craneshill Root, bags.....lb. | .10 | ..... | .10 | .10 | .12 | .10 |
| **CUBEB BERRIES,** XX bags.....lb. | .48 | .53 | .53 | .48 | .53 | .48 |
| Powdered, boxes.....lb. | .50 | .55 | .55 | .50 | .55 | .50 |
| Culvers Root, bags.....lb. | .18 | .19 | .20 | .18 | .22 | .18 |
| Cumin Seed, Malta, bags....lb. | .12 | .13 | .13 | .12 | .15 | .12 |
| Morocco, bags.....lb. | .12 | .13 | .13 | .12 | .15 | .12 |
| Cuttlefish, Bone Trieste, Straps.....lb. | .14 | .14 | .14 | .14 | .14 | .13 |
| French, boxes.....lb. | .13 | .16 | .16 | .12½ | .15 | .12½ |
| Powdered, bbls.....lb. | .09 | .10 | .10 | .09 | .10 | .09 |
| Broken, bales.....lb. | .05 | ..... | .05 | .05 | .05 | .05 |
| Damiana Leaves, bales.....lb. | .17 | .18 | .18 | .16 | .30 | .16 |
| Dandelion Root, Imp. bags..lb. | .23 | .27 | .29 | .19 | .20 | .14 |
| Deer Tongue Leaves, bales..lb. | .11 | .13 | .13 | .11 | .18 | .10 |
| Digitalis Leaves, bales.....lb. | .45 | .55 | .70 | .45 | .70 | .30 |
| Dogwood Bark, Jamaica bags.....lb. | .09 | .10 | .11 | .09 | .10½ | .09 |
| American bales.....lb. | .06½ | ..... | .06½ | .06½ | .06½ | .06½ |
| Doggrass Root, USP, cut bags.....lb. | .10 | .11 | .12 | .10 | .13 | .10½ |
| Dragons Blood Mass, cases..lb. | .65 | .70 | .70 | .65 | .70 | .65 |
| Reeds, boxes.....lb. | .95 | ..... | .95 | .95 | .95 | .95 |
| Echinacea Root, bags.....lb. | .26 | .28 | .28 | .26 | .33 | .26 |
| Elcampane Root, bags.....lb. | .08 | .09 | .09 | .08 | .09 | .08 |
| Elder Flowers, bags.....lb. | .28 | .29 | .29 | .22 | .25 | .19 |
| Elemi Gum, 85 lb cases.....lb. | .26 | .28 | .28 | .26 | .28 | .20 |
| Elm Bark, bundles.....lb. | .27 | .28 | .28 | .25 | .27 | .22 |
| Grinding bags.....lb. | .13½ | .14 | .14 | .13½ | .14 | .13½ |
| Powdered, bbls.....lb. | .19 | .22 | .22 | .19 | .22 | .19 |
| Ephedra Vulgaris, bales.....lb. | .12 | .13 | .16 | .12 | .25 | .15 |
| **ERGOT,** 150-200 lb bags....lb. | .65 | .75 | .95 | .65 | 2.50 | .80 |
| Eucalyptus Leaves, bales....lb. | .09 | .10 | .11 | .07½ | .10 | .06½ |
| Euphorbia Pilulifera, Herb, bags.....lb. | .09 | .10 | .11 | .09 | .10 | .07½ |

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WOOLWORTH BUILDING, NEW YORK CITY

# Drugs and Spices

## Monthly Review

Orris root remains unchanged with the price holding at about 23c to 24c per pound. "Rather dull" is the comment in the trade.

### Gum Arabic Strong

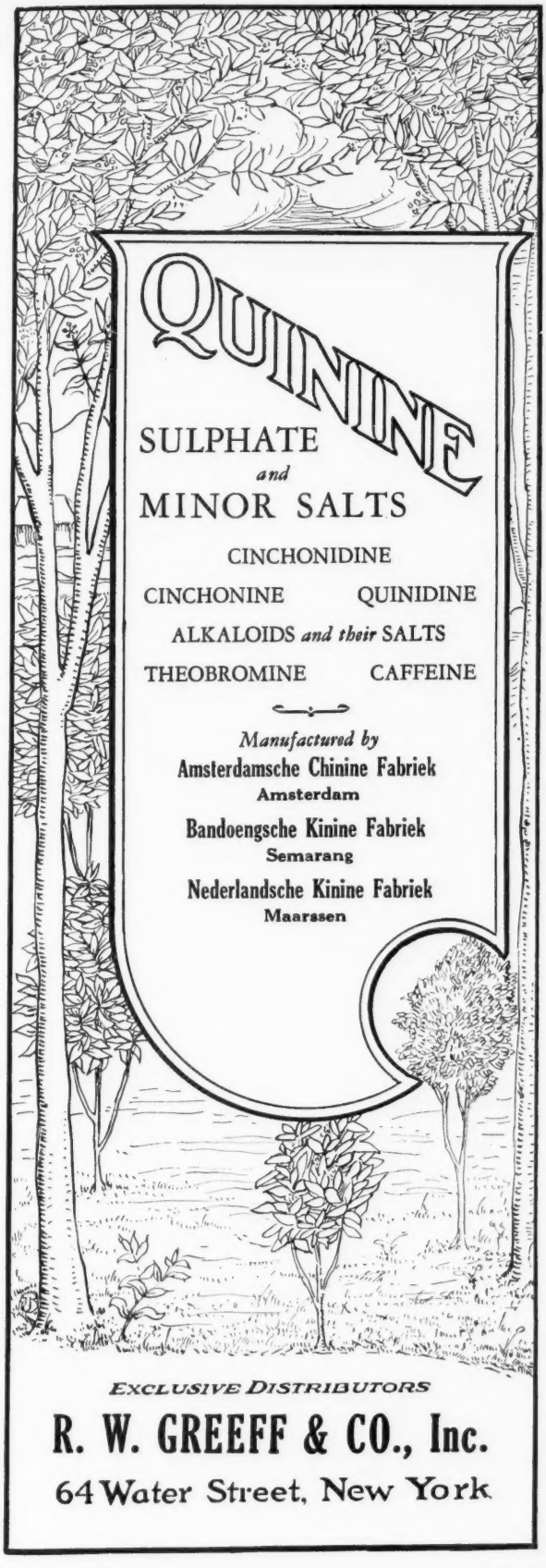
Gum Arabic is still in a very strong position. Price has again advanced to 17c and 17½c per pound as to quantity. The shortage is still keenly felt and traders are making the most of the situation with the possibility that price will shortly advance to 18c and 20c per pound although one large importer believes this to be "probable but not likely."

Cables have been received from London cancelling all quotations, but this, while admitably a bullish gesture, has not had the tendency, in itself, to push the market to higher levels.

Crops are about 50% below last year. The fact that the natives, who formerly got 1c per pound for bringing in the gum, are being paid 2c and 3c per pound now, will certainly swell the crop somewhat through stimulation them to go further than ever before to gather the gum. There is also a possibility of some substitute gums being brought in to relieve the situation. Amrad, an Indian gum which can be used as a substitute for Arabic in almost every instance, with the exception of confections, has not been imported to any great extent but is being born in mind as a possibility to relieve the stringency of the present situation.

Boxall & Co., Khartoum, in their report dealing with the market from February 19 to March 31 state that the arrivals at Kordofan stations (including Tendelti) amounted to 841 tons during the last ten days of February, against 1,335 tons last year, a shortage of 494 tons or 37%. This brings the arrivals for the whole of February to 2,033 tons, and the shortage in that month to 1,514 tons or 43%, compared with last year. During March arrivals were 1,909 tons compared with 2,703 tons for the same month of 1928, a shortage of 794 tons or 29%. The shortage in Kordofan and Tendelti arrivals this season to date therefore totals about 3,200 tons. It must be remembered that 1928 was an exceptionally early crop due to the absence of wintry weather; the large arrivals began early and finished early. If comparison is made with other years, it is found that this season's crop arrivals (December-March) are not less than 1,200 tons greater than for the same period for the largest crop recorded (1926). If allowance is made for the Ramadan holidays which came within the 1929 period, but not 1926, the difference would be still larger. Against the same period, season 1927, this season's arrivals are not less if allowance is made for the Ramadan holidays, and the same applies to 1923, whilst in the case of the remaining two years, 1924 and 1925, the arrivals this season are much larger even if no allowance is made for the Ramadan holidays. Prices: Taking El Obeid as the standard, from February 18 to 22 prices rose 6s. 9d. per cwt., remaining firm until February 25, and then fell 4s. 3d. by February 28. During March prices rose, the total increase touching 7s. 6d. per cwt. on March 7, but before the close of the day values had fallen 5s., the net increase being 2s. 6d. Prices continued to fluctuate within 6d., until March 27, when they rose 1s. 3d. and so remained to the end of the month when the market closed at 3s. 9d. above the price paid on March 1. The high values here have not reflected prices paid overseas, but have been entirely due to exporters competing one with the other to cover their low-priced commitments. The tendency of prices will

| | | Current Market | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|---|
| Euphorbium Gum, cases | lb. | .14 | .20 | .14 | .20 | .14 |
| Fennel Seed, French, bags | lb. | .17 | .18 | .17 | .25 | .16½ |
| German bags | lb. | .23 | .25 | .23 | .32 | .20 |
| Foenugreek Seed, 200 lb bags | lb. | .05 | .05½ | .05 | .06 | .04½ |
| Fish Berries, 100-125 lb bag | lb. | .06 | .07½ | .06 | .07½ | .06 |
| Flax Seed, Whole 182 lb bbls. | lb. | 14.00 | 14.75 | 14.00 | 14.75 | 14.00 |
| Ground, 180 lb bbls | lb. | .08 | .08½ | .08 | .08½ | .08 |
| Flea Seeds Black bags | lb. | .23 | .24 | .23 | .27 | .16 |
| Fringe Tree Bark or Root bags | lb. | .22 | .23 | .22 | .27 | .22½ |
| Fumigating Pastiles, boxes | lb. | .30 | .35 | .30 | .35 | .30 |
| Galangal Root, bags | lb. | .14 | .15 | .14 | .15 | .11 |
| Galbanum Gum, cans | lb. | 1.15 | 1.25 | 1.15 | 1.25 | 1.00 |
| Gamboge Gum, 100 lb cases | lb. | 1.15 | 1.20 | 1.15 | 1.35 | 1.10 |
| Powdered, cases | lb. | 1.25 | 1.35 | 1.25 | 1.50 | 1.20 |
| Gelsemium Root, bags | lb. | .10 | .11 | .10 | .13 | .09 |
| **GENTIAN ROOT,** bags | lb. | .09½ | .10½ | .09½ | .11 | .09 |
| Ground bbls, boxes | lb. | .13 | .14 | .13 | .14 | .11 |
| Powdered, bbls, boxes | lb. | .13 | .14 | .13 | .14 | .12½ |
| Ginger, African, bags | lb. | .13½ | .13¾ | .13 | .14½ | .10¾ |
| Jamaica Grinding bags | lb. | .18 | .18½ | .18 | .23 | .17 |
| Cochin ABC & Lemon, bags | lb. | .17 | .18 | .17 | .20 | .16 |
| Ginseng Root, cultivated cs. | lb. | 8.00 | 10.00 | 8.00 | 10.00 | 8.00 |
| Wild Southern, cases | lb. | ..... | 16.00 | 16.00 | 16.00 | 8.50 |
| Golden Seal Root, bags | lb. | 3.50 | 3.60 | 3.20 | 4.50 | 3.90 |
| Powdered, boxes | lb. | 3.95 | 4.05 | 3.95 | 5.25 | 4.60 |
| Herb, barrels | lb. | 1.25 | 1.30 | 1.25 | 1.30 | 1.25 |
| Grains of Paradise, bags | lb. | .50 | .60 | .50 | .60 | .40 |
| Grindelia Robusta, Herb, bale | lb. | .10 | .11 | .10 | .12 | .08½ |
| Guaiac Gum, 150 lb cases | lb. | .33 | .34 | .33 | .40 | .33 |
| Strained 75 lb cases | lb. | .70 | .75 | .70 | .75 | .70 |
| Guarana, tin cases | lb. | 2.75 | 3.00 | 2.50 | 2.75 | 1.65 |
| Hellebore Root, Black, bbls. | lb. | .05½ | .06 | .05½ | .06 | .05½ |
| White, 250 lb bbls | lb. | .07¾ | .08½ | .07¾ | .08½ | .07¾ |
| Powdered | lb. | .11 | .12 | .11 | .14 | .11 |
| Helonias Root, bags | lb. | .68 | .70 | .68 | .80 | .67 |
| Hemp Seed, bags | lb. | .05 | .06 | .05 | .07 | .03½ |
| Henbane Leaves, USP, bales | lb. | .19 | .20 | .18 | .23 | .18 |
| **HENNA LEAVES,** bales | lb. | .12 | .13 | .12½ | .13 | .12½ |
| Powdered | lb. | .15 | .16 | .15 | .17 | .16 |
| Hops, bales | lb. | ..... | .32 | .32 | .32 | .25½ |
| Horehound, Herb, bales | lb. | .08 | .09 | .08 | .09 | .07 |
| Hydrangea Root, bales | lb. | ..... | .09 | .08 | .09 | .08 |
| Insect Flowers | lb. | .35 | .37 | .35 | .35 | .22 |
| Powdered, Pure, 200 lb bb | lb. | .41 | .43 | .40 | .45 | .32 |
| **IPECAC ROOT,** Carteagna, bags | lb. | 2.95 | 3.20 | 2.70 | 3.30 | 2.35 |
| Powdered, 220 lb bbls | lb. | 3.25 | 3.40 | 3.20 | 3.65 | 3.15 |
| Rio Whole, bags | lb. | 3.00 | 3.20 | 2.85 | 3.40 | 2.80 |
| Powdered, 110 lb bbls | lb. | 3.40 | 3.50 | 3.40 | 3.50 | 3.25 |
| Isinglass, American, 130 lb cases | lb. | .95 | 1.00 | .95 | 1.00 | .95 |
| Russian (Beluga), boxes | lb. | 4.50 | ..... | 4.50 | 4.50 | 4.50 |
| Jaborandi Leaves, bales | lb. | .12 | .12½ | .11½ | .13 | .13 |
| Jalap Root, Whole, 150 lb bag | lb. | .24 | .27 | .24 | .21 | .16 |
| USP, Powd, 250 lb bbls | lb. | .29 | .32 | .29 | .26 | .22 |
| Japan Wax 24 lb cases | lb. | .18½ | .19 | .18½ | .19 | .18½ |
| **JUNIPER BERRIES,** 125 lb bags | lb. | .07½ | .08 | .05 | .07½ | .05 |
| Kamala, boxes | lb. | 1.35 | 1.40 | .95 | 1.00 | .85 |
| Kuraya Gum, Powdered, bbls | lb. | .12 | .20 | .12 | .13 | .12 |
| Kava Kava Root, bags | lb. | .14 | ..... | .14 | .16 | .15 |
| Kino Gum, Black, cases | lb. | .50 | .55 | .50 | .55 | .50 |
| Kola Nuts, 150 lb bags | lb. | .13 | .14 | .13 | .15 | .09 |
| Lady Slipper Root, bags | lb. | 1.05 | 1.10 | .85 | 1.75 | .78 |
| Larkspur Seed, bags | lb. | .40 | .45 | .40 | .45 | .30 |
| Laurel Berries, bags | lb. | .08 | .09 | .08 | .09 | .08 |
| Leaves, Greek, bags | lb. | .05½ | .06 | .05 | .07 | .04½ |
| Italian, bales | lb. | .03½ | .04 | .03½ | .05 | .03½ |
| Lavender Flowers, Ordinary | lb. | .32 | .35 | .32 | .35 | .30 |
| Selected | lb. | .42 | .43 | .43 | .55 | .40 |
| Lemon Peel, bags | lb. | .09½ | .10½ | .10 | .10 | .09½ |
| **LICORICE ROOT,** Whole bbls | lb. | .12 | .18 | .12 | .18 | .12 |
| Spanish Natural bales | lb. | .05½ | .07 | .05½ | .07 | .05½ |
| Powdered, bbls | lb. | .09 | .10 | .09 | .10 | .09 |
| Selected 2 & 5 lb bdls | lb. | .13 | .15 | .12½ | .16 | .12½ |
| Cutting, 125 lb bags | ln. | .06½ | .07 | .06½ | .07 | .06½ |
| Turkish, 150 lb bales | lb. | .05 | ..... | .05 | .05 | .05 |
| Linden Flowers with leaves, bales | lb. | .24 | .25 | .27 | .24 | .33 | .29 |
| Without leaves, bales | lb. | .30 | .31 | .32 | .30 | .36 | .27 |
| Liverwort Leaves, bales | lb. | .18 | .19 | .20 | .18 | .20 | .16 |
| Lobelia, Herb, bales | lb. | .14 | .15 | .16 | .14 | .20 | .15 |
| Seed, bags | lb. | .45 | .50 | .65 | .45 | .75 | .65 |
| Lovage Root, Imp., bags | lb. | .35 | .37 | .37 | .25 | .27 | .25 |
| Lupulin N. F., tins | lb. | 1.75 | ..... | 1.75 | 1.75 | 1.75 | 1.75 |
| Lycopodium, 88 lb. cases | lb. | .73 | .75 | .85 | .73 | 1.00 | .70 |
| **MACE SIAUW,** No. 1, cases | lb. | .85 | .86 | .86 | .82 | .98 | .88 |
| Banda No. 1, cases | lb. | .95 | .96 | .98 | .95 | 1.00 | .94 |
| Batavia No. 2, cases | lb. | .54 | .55 | .58 | .54 | .68 | .56 |
| Malva Flowers, Blue, bales | lb. | .45 | .47 | .52 | .45 | .70 | .45 |
| Black, bales | lb. | .45 | .60 | .60 | .45 | .60 | .45 |
| Leaves, bales | lb. | .14 | .15 | .15 | .14 | .15 | .14 |
| Manaca Root, bales | lb. | .22 | ..... | .22 | .22 | .22 | .22 |
| Manna, Large Flake, cases | lb. | .80 | .82 | .82 | .75 | .80 | .65 |
| Small Flake, cakes | lb. | .52 | .55 | .60 | .52 | .60 | .50 |
| Sorts, cases | lb. | .45 | .50 | .50 | .45 | .50 | .45 |
| Mandrake Root, bags | lb. | .12 | .13 | .14 | .12 | .18 | .13 |
| Marjoram, Herb | | | | | | | |
| French, No. 1 bales | lb. | .17 | .17½ | .19 | .17 | .18½ | .13½ |
| German, bales | lb. | .22 | .22½ | .23 | .22 | .18½ | .12 |
| Mastic Gum, 120 lb cans | lb. | .65 | .70 | .70 | .65 | .70 | .60 |



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# Drugs and Spices

## { Monthly Review }

depend upon whether we get the large arrivals expected in April/May/June. The weather is now definitely favorable, and reports go to show that the high prices are encouraging the natives to go great distances in the interior to collect gum. The durra crop was small, and whilst we are inclined to discount the supposed effects of the size of the durra crop on the collection of gum, this would, if anything, tend to increase collection. Exports: With reference to the export figures it must be remembered these are closed during the last ten days of the month. Last year there was a tendency to ship January/February contracts in January and February/March contracts in February, but this year the reverse is the case, whilst more gum than usual was delayed by the force of circumstances to the last days of the month. We estimate that the total exports for February would be about 2,750 tons and the total quantity of January/February would thus be about the same as last year. The real difference was, therefore, the lack of stocks in the hands of exporters and dealers.

### The Position of Tragacanth

During the past few months a fair amount of interest has been displayed in the general position of gum tragacanth, and although stocks have increased in consequence of the bigger shipments of the past few months, prices have been fully maintained, except for the very low grades. The position to-day in regard to the lower grades is vastly different from that of two years ago, when exceedingly high prices were secured for even low hoggy gum, due to the short supplies then in existence. In response to urgent recommendations from importers here, heavy shipments of these low grades were made from Turkey, Persia and Syria, with the result that the market was flooded with these qualities, and during the past six months it has been difficult to sell this grade except at a heavy sacrifice on the original valuation when imported. In view of the anxiety of owners to sell, buyers have been quietly purchasing the grades of low Persian leaf at from 90s. to 140s. per cwt., and we find that the stock is gradually getting into stronger hands. Regarding the medium to good clean yellow Persian leaf valued at from £11 to £15 per cwt., which for a considerable time was very short, we find this is now in slightly better supply, and buyers are at present not experiencing such a ready demand for this particular class of gum. During the past few weeks arrivals have been more plentiful, and it should be borne in mind that at this season most of the new crop gum is shipped, and the bulk of the arrivals should be here by the beginning of May. As the second crop shipments usually arrive about six months later, viz., October, the market in the interim has to live on the existing stock shipped from the first crop. However, it is only fair to point out that since the war the number of importers of tragacanth has increased considerably, with the result that arrivals are taking place throughout the year, regardless of what the market generally knows as the "arrival period." During the past few months there has been a slight improvement in the grading of the gum, but we have recently noticed several shipments of medium quality which have arrived very badly sorted, the result being detrimental to the shipper, as there is considerable difficulty in selling these mixed parcels. We consider that the London brokers should strongly impress upon their shippers the necessity of uniformity in quality and the more careful grading of the gum at primary source. It is very seldom now that

| | Current Market | | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|---|
| Matico Leaves, bales.....lb. | .30 | .31 | .32 | .30 | .45 | .31 |
| Mezereon Bark, bags.....lb. | .20 | .25 | .25 | .20 | .35 | .20 |
| Millet Seed, Yellow, bags...lb. | .03½ | .04½ | .04½ | .03½ | .04½ | .03½ |
| Montan Wax, Crude, bags..lb. | .06½ | .07 | .07 | .06½ | .07 | .06½ |
| Bleached, bags.....lb. | .25 | .28 | .28 | .25 | .28 | .25 |
| Moss, Iceland, bales.....lb. | .10 | .12 | .11 | .10 | .12 | .07½ |
| Irish, Bleached, bales ....lb. | .13 | .16 | .18 | .13 | .18 | .11 |
| Mullein Flowers, tins.....lb. | 2.00 | ..... | 2.00 | 2.00 | 2.25 | 2.00 |
| Leaves, bales.....lb. | .07½ | .08 | .08 | .07½ | .08 | .07½ |
| Musk Root, Russian, bags...lb. | .09 | .10 | .12 | .09 | .25 | .11½ |
| Myrrh Gum, 200 lb, cases...lb. | .38 | .41 | .65 | .41 | 1.10 | .55 |
| Nutgalls, Chinese, bags.....lb. | .22 | ..... | .22 | .22 | .22 | .22 |
| Aleppy, bags.....lb. | .21 | ..... | .21 | .21 | .25 | .21 |
| Powdered, bags.....lb. | .23 | ..... | .23 | .23 | .23 | .23 |
| Nutmegs, 110's cases.....lb. | .29 | .30 | .31½ | .29 | .38 | .30 |
| 75's & 80's cases.....lb. | .39 | .40 | .42 | .39 | .50 | .42 |
| Grinding, bags.....lb | .24 | .25 | .25 | .24 | .29 | .26½ |
| **NUX-VOMICA** Buttons, bag .....lb. | .05 | .06 | .06 | .05 | .05½ | .04 |
| Powdered, 200 lb bbls..lb. | .08 | .08½ | .08½ | .08 | .08½ | .08 |
| Oak Bark, bags.....lb. | .05 | .05½ | .05½ | .05 | .06½ | .05 |
| Olibanum Gum, 280 lb cases Siftings.....lb. | .13½ | .15 | .15 | .13 | .11½ | .13 |
| Tears, No. 1 Extra.....lb. | .27 | .28 | .28 | .27 | .30 | .26 |
| No. 2.....lb. | .20 | .22 | .22 | .19 | .20 | .18 |
| No. 3.....lb. | .16 | .18 | .18 | .15 | .17 | .14 |
| Opium Gum, USP, cases....lb. | 12.00 | 13.00 | 13.00 | 12.00 | 13.00 | 12.00 |
| Granular, cans.....lb. | 13.00 | 14.00 | 14.00 | 13.00 | 14.00 | 13.00 |
| Powdered, USP, cans.....lb. | 13.00 | 14.00 | 14.00 | 13.00 | 14.00 | 13.00 |
| Orange Flowers, cases.....lb. | .25 | ..... | .25 | .25 | .25 | .25 |
| Peel, Bitter, bags.....lb. | .11 | .12 | .12 | .10 | .11 | .10 |
| Sweet bags,.....lb. | .12 | .13 | .14 | .11 | .08½ | .08½ |
| **ORRIS ROOT,** Flor. bid. bags .....lb. | .24 | .25 | .25 | .17 | .14½ | .10 |
| Powdered, 200 lb bbls..lb. | .27 | .28 | .28 | .21 | .17 | .13 |
| Verona, bags.....lb. | .23 | .24 | .25 | .16 | .13 | .09 |
| Powdered, 200 lb bbls..lb. | .27 | .28 | .29 | .20 | .14 | .11 |
| Fingers, boxes.....lb. | 1.15 | 1.20 | 1.20 | .90 | .90 | .80 |
| Ozokerite Wax, Brown, Hard lb. | ..... | ..... | ..... | ..... | ..... | ..... |
| Bags.....lb. | .24 | .25 | .25 | .24 | .25 | .24 |
| Green, Hard, bags.....lb. | .30 | .31 | .31 | .30 | .31 | .30 |
| Yellow, Refined, bags.....lb. | .37 | ..... | .37 | .37 | .37 | .37 |
| Papain, Crude, 150 lb cases..lb. | 3.45 | 3.50 | 3.50 | 3.45 | 4.90 | 3.45 |
| Pure, Powdered, 10 lb bot..lb. | 3.50 | 3.55 | 3.55 | 3.50 | 4.35 | 3.50 |
| Paprika, bags.....lb. | .29½ | .30 | .33 | .29 | .33 | .23 |
| Pareira Brava Root, bags....lb. | .13 | .14 | .14 | .11 | .12 | .11 |
| Passion Flower, bales.....lb | .70 | .75 | .75 | .14 | .15 | .06½ |
| Patchouli Leaves, bales.....lb. | .22 | .23 | .23 | .22 | .29 | .22 |
| Pennyroyal, Herb, 100 lb bags .....lb. | .07 | ..... | .07 | .07 | .07 | .07 |
| Leaves, 100 lb bags.....lb. | .14 | .16 | .16 | .14 | .16 | .14 |
| **PEPPERMINT LEAVES,** Imp bales.....lb. | .43 | .45 | .45 | .43 | .50 | .43 |
| Domestic, bales.....lb. | .30 | .31 | .31 | .24 | .40 | .24 |
| Pichi Leaves, bags.....lb. | .13 | .14 | .16 | .13 | .14 | .13 |
| Pimento Select, bags.....lb. | .25 | .28 | .28 | .22 | .23 | .16½ |
| Pink Root, True, bags.....lb. | .58 | .60 | .60 | .58 | .75 | .58 |
| Pleurisy Root, bags.....lb. | .22 | .23 | .28 | .22 | .28 | .22 |
| Poke Berries, bags.....lb. | ..... | .30 | .30 | .20 | .30 | .20 |
| Root, 200 lb bales.....lb. | .08 | .08½ | .08½ | .07½ | .10 | .07½ |
| Pomegrant Bark of Root, bags .....lb. | .30 | .35 | .35 | .20 | .44 | .20 |
| Bark of Fruit, bags.....lb. | .25 | .30 | .30 | .25 | .30 | .30 |
| Bark of Tree, bags.....lb. | .18 | .22 | .22 | .15 | .21 | .15 |
| **POPPY FLOWERS,** Red, bags .....lb. | .55 | .60 | .60 | .50 | .65 | .50 |
| Heads, bags.....lb. | .50 | ..... | .50 | .50 | .50 | .08 |
| Prickly Ash Bark.....lb. | .14 | .17 | .17 | .14 | .17 | .14 |
| Southern bags.....lb. | .13½ | .14 | .14 | .13½ | .16 | .13½ |
| Northern, bags.....lb. | .17 | .18 | .18 | .17 | .25 | .16 |
| Berries, bags.....lb. | .20 | .21 | .21 | .19 | .22 | .17½ |
| Prince's Pine, bales.....lb. | .18 | .20 | .20 | .15 | .17 | .14 |
| Pulsatilla, Herb, bags.....lb. | .12 | .13 | .14 | .12 | .14 | .11 |
| Pumpkin Seed, bags.....lb. | .14 | .15 | .15 | .14 | .25 | .14 |
| Quassia Chips, bags.....lb. | .06½ | ..... | .06½ | .06½ | .06½ | .06½ |
| Quebracho, bulk, 125 lb. bbl.lb. | .30 | .31 | .31 | .29 | .36 | .29 |
| Root, bags.....lb. | ..... | .07 | .07 | .07 | .08 | .07 |
| Quince Seed, bags.....lb. | .70 | .80 | .80 | .70 | .80 | .60 |
| Cape, bags.....lb | 1.10 | 1.25 | 1.25 | 1.10 | 1.50 | .95 |
| Rape Seed, South American, bags.....lb. | .05½ | .06 | .06 | .05½ | .06½ | .04½ |
| Dutch, bags.....lb. | .07 | .07½ | .07½ | .06 | .07½ | .05½ |
| Japanese, small bags.....lb. | .06½ | .07 | .07 | .06½ | .07 | .06½ |
| Raspberries, Dried, bbls.....lb. | .50 | .60 | .60 | .45 | .85 | .45 |
| Red Saunders, bags.....lb. | .08 | ..... | .08 | .08 | .08 | .08 |
| Rhatany Root, bags.....lb. | .11 | .12 | .12 | .11 | .12 | .11 |
| Rhubarb Root, HD, cases...lb. | .36 | .37 | .41 | .36 | .45 | .38 |
| Powdered, bbls.....lb | .41 | .42 | .46 | .41 | .53 | .43 |
| Rosemary Leaves, bales.....lb. | .04½ | .05 | .05 | .04½ | .06 | .04½ |
| Flowers, cases, bales.....lb. | .25 | .30 | .30 | .25 | .30 | .25 |
| Rose Petals, pale.....lb. | .40 | .41½ | .42½ | .40 | .45 | .38 |
| Red.....lb. | 1.65 | 1.70 | 1.80 | 1.65 | 2.20 | 1.70 |
| Rue, Herb, bales.....lb. | .18 | .20 | .20 | .18 | .20 | .18 |
| Sabadilla Seed, bags.....lb. | .29 | .30 | .34 | .29 | .35 | .30 |
| Powdered, bbls.....lb. | .35 | .36 | .39 | .35 | .38 | .32 |
| **SAFFRON FLOWERS,** American, bales.....lb. | .34 | .39 | .40 | .34 | .40 | .29½ |
| Valencia, 1 lb cans.....lb. | 11.00 | 11.50 | 12.00 | 11.00 | 16.00 | 11.25 |
| Sage Dalmatian, bales.....lb. | .05½ | .06 | .06 | .05½ | .07 | .05½ |
| Greek, bales.....lb. | .05½ | .06 | .06 | .05½ | .06 | .04½ |
| Sandarac Gum, 300 lb bbls..lb. | .65 | .70 | .70 | .40 | .43 | .30 |
| Sarsaparilla Root, Honduras, bales.....lb. | .54 | .55 | .55 | .54 | .58 | .52 |
| Mexican, bales.....lb. | .35 | .37 | .40 | .26 | .29 | .20 |
| Sassafras Bark, Ordinary, bales .....lb. | .14 | .16 | .16 | .14 | .17 | .13½ |
| Select, bales.....lb. | .24 | .26 | .28 | .24 | .27 | .23 |
| Savory Leaves, bale.....lb. | .08½ | .09 | .09 | .08½ | .10 | .07½ |
| Saw Palmetto Berries, bags.lb. | .10 | .11 | .12 | .10 | .20 | .11 |

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271 MADISON AVENUE
NEW YORK CITY

## Monthly Review

tragacanth is resorted in London, as the cost of this operation is far too expensive on account of the heavy London dock charges. We still continue to hear that the United States, who are the largest consumers, are purchasing most of their supplies direct from origin, with the obvious result that the few parcels they purchase from London nowadays are only to meet their urgent requirements. The direct purchases made by American houses immediately following the war period proved so unprofitable that one would have thought that they would have been content to purchase from the London market, even at a higher price, rather than take the risk of being continually "flogged" by the natives. The tragacanth business is purely a consignment one, and although London is willing to enter into forward contracts in almost every commodity handled on Mincing Lane, tragacanth is an exception, as the risks on quality are far too great for any reliable dealer to negotiate. We give below figures to illustrate how the London stock has fluctuated since 1918, together with the approximate values (per cwt.) ruling during this period. We have chosen No. 1 grade to represent the values:—

| *March* | *London Stock Packages* | *Value per cwt. of No. 1 grade* |
|---|---|---|
| | | £ £ |
| 1918 | 3,015 | 40 to 50 |
| 1919 | 1,977 | 45 " 55 |
| 1920 | 8,003 | 110 " 120 |
| 1921 | 15,460 | 105 " 110 |
| 1922 | 17,603 | 70 " 75 |
| 1923 | 14,615 | 38 " 40 |
| 1924 | 13,497 | 30 " 32 |
| 1925 | 6,179 | 31 " 32 |
| 1926 | 6,349 | 31 " 33 |
| 1927 | 10,104 | 30 " 32 |
| 1928 | 6,379 | 30 " 32 |
| 1929 | 10,200 | 29 " 31 |

From the above statistics it will be observed that stocks at the moment are practically normal, whilst prices are fairly reasonable. Values are generally on a much higher plane than before the war, as in 1914 the value of No. 1 grade varied between £17 and £19 per cwt. As to future prospects, with the steadier arrival of supplies, we see no reason to anticipate higher prices in the near future, especially for the medium grades. On the other hand, with the steady demand that has recently been shown for the cheaper grades, combined with the absence of any heavy arrivals, there is every possibility that before the end of the year we shall see higher prices paid for the low industrial qualities.—"*Chemist and Druggist.*"

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The following report on Turkey's increasing crop comes from Consul E. Allen:—

The crop of gum tragacanth in Turkey during the past four years was as follows: 1925-26—6,000 bags of 100 kilos; 1926-27—2,000 bags of 100 kilos; 1927-28—4,000 bags of 100 kilos; 1928-29—6,000 to 7,000 bags of 70 kilos. The United States, England, France, and Germany are the most important buyers of Turkish gum tragacanth. Turkey's chief competitors in this line are said to be Iraq, Syria, Persia, India, and China. Total tragacanth imports into the United States during the past two years increased in both quantity and value: 1927—1,434,500 pounds, $756,000; 1928—1,707,500 pounds, $882,000.

| | Current Market | | 1929 High | 1929 Low | 1928 High | 1928 Low |
|---|---|---|---|---|---|---|
| Scammony Resin, boxes | lb. | 1.30 | 1.35 | 1.35 | 1.30 | 1.35 | 1.30 |
| Root, bags | lb. | .08½ | ..... | .08½ | .08½ | .08½ | .08½ |
| Senega Root, bags | lb. | 1.32 | 1.35 | 1.35 | 1.32 | 1.40 | 1.27 |
| **SENNA ALEX.,** 150 lb cases | lb. | .25 | .30 | .30 | .25 | .30 | .25 |
| Half leaf 150 lb cases | lb. | .12½ | .14½ | .15 | .12½ | .15 | .13 |
| Sifting, 400 lb bales | lb. | .11 | .11½ | .11½ | .10½ | .11 | .10½ |
| Tinnevelly, Bold, 350 lb bales | lb. | .16 | .18 | .18 | .16 | .20 | .15 |
| Medium Leaf | lb. | .10 | .11 | .12 | .10 | .13½ | .09 |
| Small Leaf | lb. | .07 | .09 | .10 | .07 | .10 | .07 |
| Pods, 350 lb | lb. | .08¼ | .08¼ | .09 | .08¼ | .13 | .08½ |
| Powdered, 200 lb | lb. | ..... | .11 | .11 | .11 | .10 | .11 |
| Serpentaria Root, bags | lb. | .70 | .73 | .72 | .65 | .77 | .70 |
| Shellac, T. N., bags | lb. | .57 | .58 | .58 | .57 | .58 | .57 |
| Simaruba Bark, bales | lb. | .20 | .25 | .40 | .20 | .38 | .08 |
| Skullcap Leaves, Eastern, bales | lb. | ..... | .40 | .40 | .40 | .40 | .33 |
| Western, bales | lb. | .18 | .19 | .20 | .18 | .26 | .18 |
| Skunk Cabbage, Striped, bales | lb. | .14 | .16 | .16 | .14 | .16 | .14 |
| Snake Root, Canada Natural, bags | lb. | .27 | .28 | .28 | .24 | .30 | .24 |
| Canada, Stripped, bags | lb. | .55 | ..... | .55 | .55 | .55 | .55 |
| Soap Bark | lb. | .14 | .15 | .15 | .14 | .15 | .14 |
| Cut, 125-175 lb bags | lb. | .14½ | ..... | .16 | .14½ | .17 | .16 |
| Crushed, 200 lb bbls | lb. | .16 | ..... | .16 | .16 | .17 | .16 |
| Powdered, bbls | lb. | .17 | ..... | .17 | .17 | .18 | .18 |
| Spearmint Leaves, American, bales | lb. | .26 | .31 | .31 | .25 | .30 | .25 |
| Spermaceti, blocks, cakes, cases | lb. | .32 | .35 | .35 | .32 | .35 | .32 |
| Spikenard Root, bags | lb. | .18 | .18½ | .20 | .18½ | .25 | .20 |
| Squaw Vine, bales | lb. | .20 | .21 | .21 | .18 | .21 | .21 |
| Squills, White | lb. | .09 | .10 | .13 | .09 | .16 | .08 |
| Powdered, bulk | lb. | .23 | .25 | .25 | .20 | .30 | .15 |
| Stavesacre Seed, bags | lb. | .16 | .17 | .18 | .16 | .18 | .15½ |
| Stillingia Root, bags | lb. | .10 | .11 | .12 | .10 | .12 | .10 |
| Stone Root, bags | lb. | .08 | .09 | .09 | .08 | .09 | .08 |
| St. Ignatius Beans, bags | lb. | .14½ | .15 | .15 | .14½ | .15 | .14½ |
| St. John's Bread, bags | lb. | ..... | .09 | .09 | .09 | .14½ | .09 |
| **STRAMONIUM LEAVES,** bales | lb. | .18 | .20 | .20 | .18 | .20 | .16 |
| Seed, bags | lb. | .07½ | ..... | .07½ | .07½ | .07½ | .07½ |
| Strophanthus Seed, Kombe, bags | lb. | 2.00 | 2.25 | 2.25 | 2.00 | 3.00 | 2.00 |
| Styrax Liquid, Artificial | lb. | .26 | .35 | .35 | .26 | .35 | .26 |
| Genuine, USP | lb. | .40 | .45 | .45 | .40 | .45 | .36 |
| Sunflower Seed, bags Calif | lb. | .06 | .07 | .07 | .06 | .09 | .06 |
| South American, bags | lb. | .07 | .07½ | .07½ | .07 | .07½ | .06 |
| Tamarinds, bbls | lb. | .05 | .05½ | .05½ | .05 | .06 | .05 |
| Kegs | keg | 3.85 | ..... | 3.75 | 3.85 | 3.85 | 3.85 |
| Tansy, Herb, bales | lb. | .15 | .16 | .16 | .11 | .14 | .11 |
| Thus Gum, 280 lb bbls | lb. | .11½ | .20 | .20 | .11½ | .20 | .11½ |
| **THYME,** Spanish, bales | lb. | .08½ | .09 | .09 | .08½ | .09 | .08½ |
| French, bales | lb. | .08 | .08½ | .08½ | .08 | .08½ | .07 |
| Tonga Root, bundles | lb. | .42 | ..... | .42 | .42 | .55 | .42 |
| Vine, bundles | lb. | .42 | ..... | .42 | .42 | .55 | .42 |
| Tonka Beans, Angostura Cases | | 1.90 | 2.00 | 2.00 | 1.90 | 2.00 | 1.90 |
| Para cases | lb. | .90 | ..... | .90 | .90 | .90 | .90 |
| Surinam cases | lb. | 1.25 | 1.50 | 1.50 | 1.25 | 1.50 | 1.25 |
| Tragacanth Gum, No 1, 100 lb cases | lb. | 1.45 | 1.50 | 1.60 | 1.50 | 1.60 | 1.55 |
| No. 2 | lb. | 1.40 | 1.50 | 1.50 | 1.40 | 1.50 | 1.40 |
| No. 3 | lb. | 1.25 | 1.30 | 1.30 | 1.25 | 1.30 | 1.25 |
| Powdered, 50 lb boxes | lb. | 1.00 | 1.10 | 1.10 | 1.00 | 1.10 | .85 |
| Turkish cases | lb. | .45 | ..... | .45 | .45 | .45 | .45 |
| Turmeric Root Madras, bags | lb. | .08½ | .08¾ | .09 | .08½ | .12 | .06 |
| Aleppy bags | lb. | .09½ | .10 | .10 | .09½ | .13 | .06½ |
| Powdered | lb. | .13 | .15 | .15 | .13 | .15 | .10 |
| China bags | lb. | .11 | .12 | .12 | .11 | .11 | .09 |
| Turpentine Venice True, 80 lb cases | lb. | .32 | .40 | .40 | .32 | .40 | .3 |
| Artificial, 80 lb cases | lb. | .17 | ..... | .17 | .17 | .17 | .12 |
| Uva Ursi Leaves, bales | lb. | .06 | .06½ | .06½ | .06 | .07 | .07 |
| Valerian Root, Belgium, bags | lb. | .23 | .28 | .30 | .23 | .30 | .16 |
| **VANILLA BEANS,** Mexican, whole, cases | lb. | 3.25 | 4.00 | 4.00 | 3.25 | 4.00 | 4<br>3.25 |
| Cuts, cases | lb. | 2.62½ | 2.86½ | 2.86½ | 2.50 | 2.75 | 2.50 |
| Bourbon, cases | lb. | 1.85 | 2.25 | 2.25 | 1.85 | 2.75 | 2.00 |
| South American, cases | lb. | 2.50 | 2.75 | 2.75 | 2.50 | 2.75 | 2.50 |
| Tahiti, Green, label cases | lb. | 2.25 | 2.50 | 2.50 | 2.25 | 2.50 | 2.25 |
| Vetivert Root, 100 lb bags | lb. | .25 | ..... | .25 | .25 | .30 | .25 |
| Violet Flowers, bags | lb. | .75 | .80 | 1.00 | .68 | .90 | .63 |
| Wahoo Bark of Root, bags | lb. | .50 | .51 | .56 | .51 | .62 | .51 |
| Bark of Tree, bags | lb. | .25 | .26 | .31 | .25 | .35 | .25½ |
| White Pine Bark, Roseed, bags | lb. | .08 | .10 | .15 | .07 | .08 | .07 |
| White Poplar Bark, bags | lb. | .05½ | .07 | .07 | .05½ | .07 | .05½ |
| Wild Cherry Bark, Thin, Green | lb. | .14 | .15 | .20 | .14 | ... | ..... |
| Rossed bales | lb. | .11 | .12 | .12 | .11 | .12 | .11 |
| Thick Rossed, bales | lb. | .09 | ..... | .09 | .09 | .09 | .09 |
| Thin Natural, bales | lb. | .08 | .09 | .09 | .07½ | .08 | .07½ |
| Thick Natural, bales | lb. | .06 | .06½ | .06½ | .05 | .06 | .05 |
| Wild Indigo Root, bags | lb. | .14 | .15 | .15 | .13 | .14 | .13 |
| Willow Bark, bags | lb. | .05 | .05½ | .05½ | .05 | .06 | .05 |
| White, bags | lb. | .15 | ..... | .15 | .15 | .05 | .15 |
| Witch Hazel Bark, bags | lb. | .07 | .08 | .08 | .05½ | .08 | .06½ |
| Leaves, bales | lb. | .07 | .08 | .08 | .06½ | ..... | ..... |
| Wormseed, American, bags | lb. | .10 | .11 | .13 | .10 | .20 | .15 |
| Levant, bags | lb. | 3.95 | 4.10 | 4.15 | 3.95 | 5.25 | 4.25 |
| Wormwood, Herb, Imp., bales | lb. | .08 | .08½ | .10½ | .08 | .10¼ | .10 |
| Dock Root, bags | lb. | .10 | .11 | .11 | .10 | .11 | .10 |
| Yerba Mate, bags | lb. | .18 | .20 | .20 | .18 | .20 | .18 |
| Santa, bags | lb. | .10 | .11½ | .11½ | .09½ | .11 | .90½ |
| Zedoary Root, bags | lb. | .07 | .08 | .08 | .06½ | .07 | .06½ |

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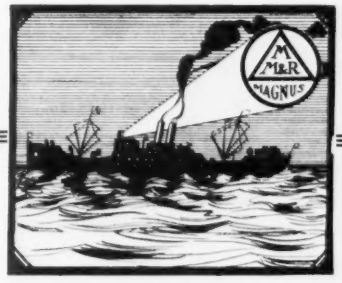

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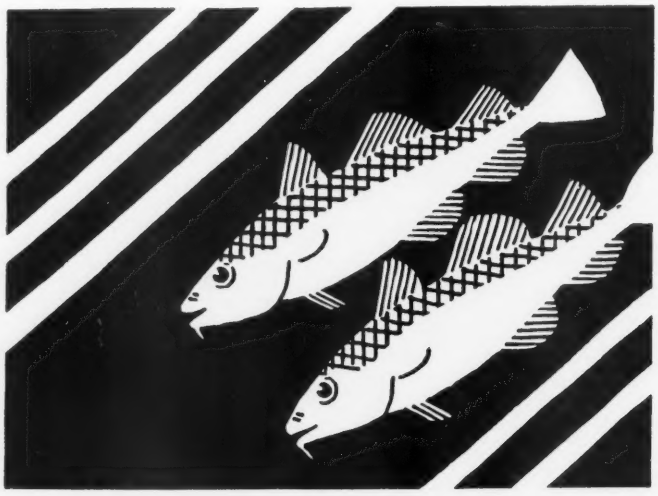

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**One Hudson St., New York, N. Y.**

## Patents Issued

(*Continued from page 462*)

a position exactly beneath a capsule cap carried in a holder on a rotary table and is then forced upwardly by a cam-actuated plunger through the guide into the capsule cover or cap. K. W. Schmidt, Nuremberg, Germany. British Patent No 296,046, filed May 15, 1928.

### Vitamins

Materials containing growth-producing vitamins are heated with infra-red rays or rays other than those comprised by the term ultaviolet, in order to produce anti-rachitic substances. Such substances may be treated to render them water soluble for use in hypodermic injections. The use of X-rays, rays from a Lenard tube, canal rays and cathode rays is also referred to. Substances suitable for treatment with radiations are obtained from typhoid bacilli, brown rot of peaches, sarcomatous tissue, agaricus campestris and ergot of rye, by solution in alcohol and acetone, the saponifiable fats being removed to leave a residue insoluble in water. Vitamins insoluble in water are treated to obtain an active soluble product by digesting with aqueous sodium taurocholate and glycocholate at 100 degrees C. The solution is filtered and evaporated to dryness, the residue dissolved in alcohol, neutral lead acetate added to precipitate lead glycocholate, and basic lead acetate added to precipitate the taurocholate. Excess of lead salt is precipitated by sulphuretted hydrogen, the alcoholic solution when evaporated to dryness leaving an active residue soluble in water. A. J. Pacini, Chicago, Ill., assignor, C. M. Richter, Chicago Ill. British Patent No 296,053, filed Aug. 10, 1928.

### Vitimins

In the production of vitamin D by the irradiation of ergosterol by ultra-violet rays, the exposure is interrupted before all the ergosterol has been transformed, the interruption being determined at a point such that the absorption of light between the wave lengths lambda equal to 300 and lambda equal to 230, is at, or approximately at, a maximum. The progress of the reaction is checked by passing a solution of ergosterol which has been subjected to ultra-violet rays through an apparatus wherein its absorptive power is tested. I. G. Farbenindustrie A. G., Frankfort-on-Main, Germany. British Patent No. 296,093, filed Aug. 22, 1928.

### Symmetrical Arsenobenzenes

These are products which possess therapeutic properties. Various examples are cited. K. Carpmael and K. S. Carpmael, London, England. British Patent No. 296,327, filed May 27, 1927.

### Hormones

A process for purifying and isolating the active principles of various glandular products, applicable particularly to extracts from the posterior lobe of the pituitary gland, consists in treating the gland, or preferably, a partially purified extract from it, with an organic carboxylic acid, such as acetic, propionic, or butyric acid, so as to dissolve the active principles but leave behind the greater part of the contaminating proteins, and then fractionally precipitating the solution by the addition of various organic solvents such as acetone, ether and petroleum ether. It is stated that a blood pressure raising (pressor) hormone and a uterus-contracting (oxytocic) hormone are separately obtained from pituitary extract. O. Kamm, T. B. Aldrich and I. W. Grote, Detroit, Mich., assignors, Parke Davis & Co., Detroit, Mich. British Patent No. 303,362, filed Dec. 21, 1928.

### Means to Prevent Loss of Stoppers from Bottles

A cork is secured to the neck of a bottle by a flexible strip having at one end a clip and at the other end means readily securable to the neck of the bottle. The flexible metal strip may be bifurcated at its ends, the arms of one end being secured to the cork or like stopper and those at the other end being secured by a tongue and slot connection. R. Lion, London, England. British Patent No. 303,437, filed Oct. 3, 1927.

### Capsules and Tube Expanders

Internal capsules in the necks of containers are secured by radially expanded segmental jaws actuated by levers. According to the invention pressure is exerted on the top of the capsule by segmental stops and opposed pressure is exerted on the expanded part of the capsule by the edges of the jaws during the sealing operation. The jaws move both in a radial and an axial direction relative to the capsule, and are formed integrally with the operating levers. Pinchin Johnson & Co., Ltd., and C. H. Brown, London, England. British Patent No. 303,618, filed Nov. 21, 1927.

## GERMAN PATENTS

### Preserving Pure Ether

Pure ether is preserved by the addition of a very small amount of organic tanning material in the proportion of approximately one milligram per liter of the ether. E. Merck, Darmstadt, Germany. German Patent No. 468,020, filed Oct. 17, 1926.

### Liquid Esters of Di-Iodobehenic Acid

These esters are prepared from the acid at the ordinary temperature. The acid is treated with isobutyl alcohol or isoamyl alcohol into the corresponding esters, or else the ester of behenolic acid is first formed and then subjected to treatment with iodine reagent to introduce the iodine group. I. G. Farbenindustrie A. G., Frankfurt am Main, Germany. German Patent No. 468,021, filed May 13, 1925.

### Sodium Calcium Lactate

Sodium calcium lactate is made in stable form by neutralizing a solution of lactic acid with the equivalent of soda and lime or with a slight excess of lime and then evaporating the solution until the product solidified to a solid mass on cooling. This mass falls into a powder or may be pulverized and in certain cases somewhat dried. Dr. E. Ruppin, Berlin-Grunewald, Germany. German Patent No. 467,937, filed May 8, 1924.

### Double Ampulle

The two parts of the ampulle are separated from one another by means of a fusible plug. M. Woelm A. G., Spangenberg, Germany. German Patent No. 467,951, filed June 30, 1926.

### Iodo Substituted Benzonitriles with Phenolic Ether Groups

Iodo-substituted phenol ethers are heated with metallic salts of iodo-substituted oxybenzonitriles in the presence of catalysts, the reaction taking place at high temperature, advisably at 210 to 240 degrees C. Schering Kahlbaum A.G., Berlin, Germany. German Patent No. 467,639, filed Aug. 3, 1926.

### Reagent for Quick Formation of Blood Builders

This is made from an aqueous-alcoholic borax-methylene blue solution, which consists of a two to three per cent. aqueous solution of a tannin with very small additions of alcohol and salicylic acid, and which also contains eosin for special purposes. X. F. Ringold, Hamburg, Germany. German Patent No. 467,604, filed Jan. 4, 1927.

### Making Formaldehyde

Methylene chloride is heated in the presence of water in closed vessels, preferably with constant agitation of the liquid, to temperatures of approximately 140 to 170 degrees C. Holzverkohlungs Industrie A. G., Konstanz, Baden, Germany. German Patent No. 467,234, filed August 29, 1922.

### Non-Irritating Pain-Alleviating Disfectant

This preparation is made by introducing substances, such as trioxymethylene and paraformaldehyde, which split off solid formaldehyde, into molten thymol. The amount of these substances added is such that a solution is obtained. Dr. A. Abraham's Laboratorium, Berlin-Halensee, Germany. German Patent No 467,245, filed March 9, 1924

### Making Tuberculin

Tubercule bacilli are brought into water which contains living yeast cells. The bacilli absorb the yeast cells and form a slime which separates out on the surface of the water. This slime develops tubercule bacilli which are converted in known manner into tuberculin. Dr. I. Schiller, Berlin-Charlottenburg, Germany. German Patent No. 467,246, filed Feb 13, 1925.

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## New German Medicinals

*(Continued from page 452)*

in Deutsche medische Wochenschrift, year 1928, number 36, by Fliegel in Deutsche medische Wochenschrift, year 1928, pages 2053ff. Manufactured by Nordmark Werke A. G., Hamburg, Germany.

**Sudoretten.** This preparation comes on the market in the form of tablets containing a mixture of tar, silica, zinc oxide, Rhiz, iridis, talc, amylum, formalin and lanolin in addition to a small amount of powder. The tablets are crushed and the fine powder is then rubbed into the places to be treated. Recommended for use in the treatment of hyperhydrosis. Described by Griesbach in Medische Welt, year 1928, paged 1124ff. It is manufactured by Hirsch Apotheke Dr. Fresenius, Wiesbaden, Germany.

**Thalassan.** Consists of a mixture of belladonna and dial. Recommended for use in the treatment of seasickness. Described by Bruns and Hoernicke in Muenchner medische Wochenschrift, year 1928, pages 167ff. Manufactured by Chemische Fabrik Promonta, Hamburg.

**Thyangol-Pastilles.** Recommended for use in the treatment of angina pectoris, diseases of the mouth cavity and diseases of the larynx. Described by Collischon in Medische Klinik, year 1928, pages 1990ff. Contains anaesthesin 0.02 part by weight, phenacetin 0.08 part by weight, thymol, menthol, eucalyptol 0.001 part by weight. Manufactured by Dr. Thilo & Co., Chemische Fabrik, Mainz, Germany.

**Tussipect.** Contains the ammonium salt of primulinic acid and saponin from the root of the primrose. Comes in tablets, syrups and solution, and is recommended for use an as expectorant. Described by Zueler in Deutsche Landarzt, year 1928, pages 640ff. Manufactured by Dr. Sachs & Co., Berlin, Germany.

**Uronedal.** Comes in the form of ½ g. tablets. They consist of hexamethylenetetramine in the proportion of a quarter of a gram, sodium phosphate, sodium salicylate aa 0.02 part by weight extract valerianae 0.016 gram be weight, extract uvae ursi, extract herniae aa 0.02 part by weight. Recommended for use as a diuretic and a disinfectant of the urinary passage. Manufactured by E. Palm, Fabrick Chemische Pharmazeutische Praeparaten, Muenchen, Germany.

**Uronovan.** Hexamethylenetetramine methylenephosphate. Recommended for use as a disinfectant of the urine. When it dissolves in urine, it splits off formaldehyde. Dose consists of one to two tablets weighing half a gram a piece every two hours. It will dissolve in water. Described by Eberhardt in Medische Klinik, year 1928, page 1318ff. Manufactured by Heyl & Co. A. G., Berlin, Germany.

**Vasal.** This preparation was called vesipyrin formerly. It is phenylacetyl salicylate. Decomposed in the intestines and hence does not bother the stomach. It serves as an antiseptic of the urinary passage and also as an antirheumatic. It is supposed to be free from all attendant harmful by-effects. The dose is 0.5 to 1.0 part by weight three to four times a day. Described by K. Hofman in Muenchner medische Wochenschrift, year 1928, pages 478ff. Manufactured by Chemische Fabrik Reiherstieg, Hamburg, Germany.

**Yxin.** An antiseptic free from irritating effects and acting quickly and effectively. The brownish colored powder, which is absolutely odorless in contradistinction to iodoform and which is an enzymatic reaction product from silver oxide with five per cent. silver content, is recommended for use in spreading over wounds which are not healing quickly. Used in the treatment of ulcers on the legs, carbuncles, etc. Described by Feilchenfeld in Medische Klinik, number 45, by Reisenthal in Muenchner medische Wochenschrift, year 1928, pages 173 ff and by Salomon in Deutsche medische Wochenschrift, year 1928, number 2. Recommended for use in veterinary practice. Described for this purpose by Seitz in Berlin. Tieraertzl. Wochenblatt, year 1928, number 13. Manufactured by the Physiologische—Chemische Laboratorium Hugo Rosenberg, Freiburg i. Br., Germany.

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The Abbott Laboratories, Inc., North Chicago, Ill. is considering plans for the construction of a new plant unit at Libertyville, Ill., one or two-story type estimated to cost close to $100,000, including equipment. It is proposed to begin work within 30 to 60 days. The company has arranged for the sale of 30,000 shares of common stock, a portion of the fund to be used for the expansion.

## West Australian Sandalwood Oil

(*Continued from page 456*)

The conclusion is reached that as the value of sandalwood oil as a medicinal agent depends entirely on its santalol content, these analysis prove that the particular Australian sandalwood oil, obtained from santalum spicatum, should receive recognition in the U. S. P. so that it may be legally used as a medicine in the United Sattes.

## Can Covering Machine Makes Speed Possible

(*Continued from page 454*)

position on the can, while the two sides of the top at right angles to the side which is in position, are in line with the sides of the can bottom. The cover is therefore in a position to be forced down on the can bottom without difficulty. Consequently, the machine then brings the cover from the oblique position to the same plane as the bottom of the can and forces it in position.

## The Change from "Full Line" to "Specialties"

(*Continued from page 440*)

"Very early I became convinced that the way to success lay through simplification of our line which consisted of nearly six thousand items to say nothing of a jobbing business we did in fine chemicals, glycerin, oils, and what not. A little very simple cost finding convinced me that the capital ties up in reserve stocks and the slow turnover of many, many items was the secret of our low salaries and no dividends. When I got more into the sales problems I went a step beyond simplification, and specialization seemed to me the secret of our future. This became a fixed idea with me. But how to put it across ? As a matter of fact I went with the company in 1906 and it was not till 1918 that we adopted wholeheartedly a policy of specialization. Those twelve years were a mighty fruitful period of education.

"I was in the business to relieve Father of detail, and my problem was to win him over from the "full line," in which he had great pride, to the specialties on which I pinned my faith. Naturally, I attacked the most vulnerable points, and the first item we discontined was a massage cream on which we always had heavy returns for spoilage. It was easy to show a definite loss on this item. At the time we had a whole floor devoted to fluid extracts of which we made a complete list, some of which, like white

pond lily and black pepper, were sold in pitiful quantities. Yet we had first, second, and third percolations in reserve, which tied up many thousands of dollars in drugs and alcohol. I finally won my point and the alcohol we recovered from that fluid extract department kept the whole plant supplied for a long time. Our powdered soap bark was another flagrant example that I remember. It had to be packed under a hood and we devoted an entire room to this operation which we carried on one week in fifty-two.

"Along another line I was anxious to make changes —that is, in the simplification of our systems and the modernizing of our plant. Our 6,000 formulas were kept on cards, with numerous riders recording batches made, in a wooden rack right next to the print shop which was just about the best fire hazard in the plant. When I first pointed this out, my father's answer was: 'Providence has been good to us for seventeen years, and I see no reason for doubting a continuance of this blessing.' But the idea had been planted. I kept nursing it along. Four years later it sprouted in our first concrete building."

"Father was both broad-minded and a good sport. When convincing arguments were presented in favor of a program of specialization he was completely sold and put everything he had back of the idea. And so the business has continued to grow and more buildings have been built."


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Stearic Acid—Red Oil
Glycerine—Ceresine
Spermaceti

WILL & BAUMER CANDLE CO., Inc.
Syracuse, N. Y.

## Export -- A Cure

*(Continued from page 443)*

in each of these markets. Thus we require that those markets that are well developed and are showing a good return carry the newer markets that are still showing red figures. This is no different than the course of procedure of a manufacturer entering domestic territory that is new to him, or of a manufacturer developing a new specialty or a new line of products. Perhaps the cost of developing a new specialty or a new line of products at home appears more attractive than export since manufacturers with a firm name well established at home might feel that they would rather capitalize this name for new products than attempt to establish the name abroad. But this is one of the apparent advantages of staying in home markets that will quickly disappear after a few of the foreign markets have been captured.

While I have listed patience last in order of the requirements of a manufacturer developing foreign markets, it is far from being of small importance. I will illustrate this by the mere statement that we had been in some markets for as long as fifteen years before the tide turned in our favor. But we kept steadily at these markets until we discovered the reason for the lack of development. In every case we have been amply rewarded for waiting, while, if we had quit the market, we would have thrown away a sizeable investment.

As I look back at the time we started in the export business, I think of the lack of available aids at that time, compared with the tools at hand today. There is much to be secured from the representatives of the Department of Commerce in foreign countries if one learns how to use them properly. They cannot do everything for a manufacturer but they can do a great deal that oftimes is impossible of accomplishment without their aid.

In the early days it was no simple task to bring an ethical product, such as Antiphlogistine, to the attention of the medical profession in foreign markets. Aside from the handicap of the different languages, it was difficult to obtain accurate lists of the members of the medical profession and it took a number of years to complete the list of the thousand medical journals which are now carrying our copy.

Every day these problems, as we see them, are becoming simpler. For example, there has recently been published a magazine called "World Medical Topics," which covers several important markets outside of the U. S. We have taken full page space in the Asiatic edition, with a sworn circulation of 50,000, and the Spanish edition of 20,000 guaranteed to reach every physician in Spanish America.

You can appreciate what this means when a manufacturer can, by a single effort in these markets, accomplish almost over night what required of us years of time, diligent effort and a considerable outlay of capital.

The selection of proper representatives and agents is likewise much less a problem now, since there are in every country not one, but several firms who are on the constant lookout for products to add to their lines.

Many other obstacles which we encountered are to-day unknown, and the manufacturer who contemplates developing his business in foreign markets has practically the entire road charted for him, while a decade ago the firm seeking export business was indeed a pioneer and had to hew his own path.

---

Harry E. Eaton, Des Moines, Ia, secretary of the state board of pharmacy examiners for the last 16 years, and for 4 years a member of the board, resigned May 1, effective July 1. He will become state manager of agency sales for the Walgreen Drug Co., having charge of the wholesale division of the company.

Walter F. Meads, Clarinda, who has been elected successor to Mr. Eaton, has been pharmacist at the state hospital at Clarinda and is a graduate of the University of Iowa.

John F. Hott, who for the last eight months has been directing the Pinus Medicine Co. which he has acquired, returned last week to the Pepsin Syrup Co. as manager of its plant. Mr. Hott will devote his entire time to the Pepsin Syrup Co. leaving the operations of the Pinus concern in the hands of a manager.

Pond's Extract Co., Clinton, Conn., has approved plans for a new addition to plant on John st., to be three-story, reported to cost in excess of $75,000 including equipment The new unit is scheduled for completion in the fall.


Clamp on any Tank or other Mixing Container

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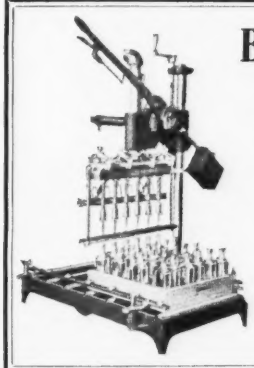

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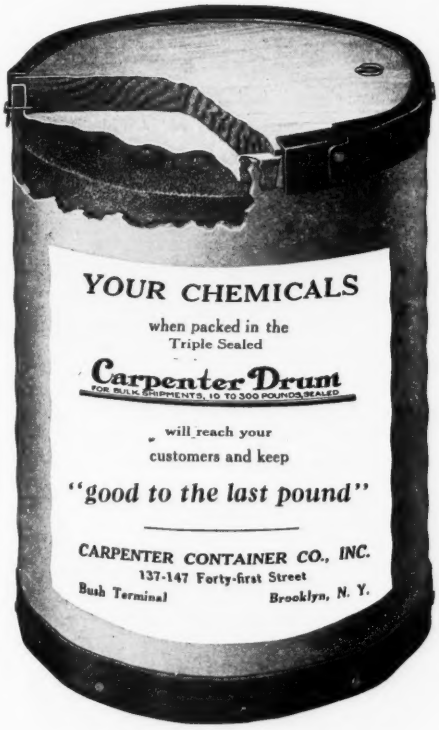


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